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7. Pressure within the

lar Pressure within the during different phases

force with which a sol- passes through a semi- separating solutions. It is measured by drostatic (mechanical) be opposed to the stand- the passage to a stand-

ference between systolic

trial pressure at time of e ventricles, or the ven-

sure of the blood within es near the periphery, sively from capillaries to heart the pressure may ve pressure) due to neg- pressure.

porary paralysis due to trunk.

Paralysis due to pres-

nor, gummata.

as for exerting pressure

For control of hemor- ve bleeding point when

er a bone may be suffi- sure points follow.

tery, 2 in. (5 cm.) above

ards against spine. Tem-

of face in front of ear

nd mastoid process. Sub-

d clavicle, pressing down

y artery, by compression

artery, compressed, by

ge of biceps muscle half-

also above bend of elbow

s into radial and ulnar

ry, press on thumb side

s. Ulnar artery, press on

wrist against ulna. Deep

mb opposite root of ab-

from a splint or other appliance, or from the body itself when it has remained immobile in bed for extended periods of time. SYN: *bed-sore*, *decubitus ulcer*.

presternum (prê-stêr'nûm) [L. *prae*, before, + Gr. *sternon*, chest]. The upper part of the sternum. SYN: *manubrium sterni* [NA].

presuppurative (prê-sûp'û-râ'tiv) [" + *sub*, under, + *puris*, pus]. Rel. to period of inflammation before suppuration.

presylvian fissure (prê-sil'vi-ân). The anterior division of the sylvian fissure.

presystole (prê-sis'tô-lê) [L. *prae*, before, + Gr. *systole*, contraction]. The period in the heart's cycle just before the systole. SYN: *perisystole*.

presystolic (prê-sis-tôl'ik). Before the systole of the heart.

pretarsal (prê-tar'sâl) [" + Gr. *tarsos*, tarsus]. In front of the tarsus.

preterm. In obstetrics, events occurring prior to the 25th day (39th week) of gestation.

pretibial (prê-tib'i-âl) [" + *tibia*, shin]. In front of the tibia.

pretibial fever. A form of leptospirosis caused by one of the several serotypes of the autum-nalis serogroup. It is characterized by fever, rash on legs, prostration, splenomegaly, and respiratory disturbances.

preurethritis (prê'û-rê-thr'i'tis) [" + Gr. *ourethra*, urethra, + *itis*, inflammation]. Inflammation around the urethral orifice of the vaginal vestibule.

prevalence (prêv'â-lêns) [L. *praevalens*, pre-va-il]. The number of cases of a disease present in a specified population at a given time. SEE: *incidence*.

preventive (prê-vên'tiv) [ME. *preveniten*, to anticipate]. Hindering the occurrence of something, esp. disease. SYN: *prophylactic*. **preventive medicine**. The branch of medicine concerned with preventing the occurrence of both mental and physical illness and disease.

There are three levels of preventive effort. Primary preventive medicine is concerned with preventing the development of disease in a susceptible or potentially susceptible population. These efforts include general promotion of health and specific protection such as immunization. Secondary preventive medicine involves early diagnosis and prompt therapy to shorten duration of illness, reduce the severity of disease, reduce possibility of contagion, and limit sequelae. Tertiary preventive medicine is important in limiting the degree of disability and promoting rehabilitation in chronic and irreversible diseases.

vertebral (prê-ver'tê-brâl) [L. *prae*, before, + *vertebra*, vertebra]. In front of

a vertebra.

prevertiginous (prê-ver-tij'i-nûs) [" + *ver-tigo*, dizziness]. Having a tendency to fall forward.

prevesical (prê-vês'i-kl) [" + *vesica*, bladder]. Located in front of the bladder.

previa, praevia (prê'vi-â) [L.]. Appearing before or in front of.

prezonular. Pert. to the posterior chamber of the eye, the space between the iris and ciliary zonule (suspensory ligament).

priapism (pri'â-pizm) [L. *priapismus*]. Abnormal, painful, and continued erection of the penis due to disease and usually without sexual desire. SEE: *erection*; *gonorrhea*.

ETIOL: May be due to lesions of the cord above the lumbar region, or turgescence of the corpora cavernosa without erection may exist. It may be reflex from peripheral sensory irritants, from organic irritation of nerve tracts or nerve centers when libido may be lacking. Sometimes seen in patients with acute leukemia.

priapitis (pri'â-pi'tis) [" + *itis*, inflammation]. Inflammation of the penis.

priapus (pri'â-pûs). The penis.

prickle cell (prik'l). A cell with rod-shaped processes, intercellular bridges connecting with similar adjoining cells.

prickly heat. Noncontagious cutaneous eruption of red pimples with itching and tingling of the affected parts, seen usually in hot weather. SYN: *lichen tropicus*; *miliaria*.

ETIOL: Inflammation of skin around sweat glands.

Priessnitz compress (prês'nîtz). [Vincent Priessnitz, Silesian farmer, 1799-1851] A cold wet compress.

primal scene. In psychiatry, the term for a child's first observation of sexual intercourse by the parents.

primary (pri'âm-rê) [L. *primarius*, principal]. First in time or order. SYN: *principal*.

primary amputation. Amputation performed before inflammation has set in.

primary bubo. A simple adenitis of an inguinal gland. SYN: *bubon d'embles*.

primary care. Basic or general health care provided at the person's first contact with the health care system. Usually this contact is for common illnesses. The primary health care provider assumes ongoing responsibility for health maintenance and therapy for illness, including consultation with specialists.

primary cell. In physical therapy, a device consisting of a container, two solid conducting elements, and an electrolyte for the production of electric current by chemical energy.

primary hemorrhage. Bleeding at time of

STEDMAN'S MEDICAL DICTIONARY



Third Unabridged Lawyers' Edition

ILLUSTRATED

*A vocabulary of medicine and
its allied sciences, with pronunciations
and derivations*

*Completely revised by a staff of 33 editors, covering
44 specialties and subspecialties*

intracranial *p.*, *p.* within the cranial cavity.
 intraocular *p.*, the *p.* (usually measured in millimeters of mercury) of the intraocular fluid within the eye, measured by means of a manometer.
 negative *p.*, *p.* less than that of the ambient atmosphere.
 occlusal *p.*, biting *p.*; any force exerted upon the occlusal surfaces of teeth.
 oncotic *p.*, osmotic *p.* exerted by colloids in solution.
 osmotic *p.*, the *p.* that must be applied to a solution to prevent the passage into it of solvent when solution and pure solvent are separated by a perfectly semipermeable membrane. (Sometimes less correctly viewed as the force with which the solution attracts solvent through the semipermeable membrane.)
 partial *p.*, the *p.* exerted by a single component of a mixture of gases. The partial *p.* (or tension) of carbon dioxide (pCO_2) or oxygen (pO_2) is expressed in millimeters of mercury.
 pulmonary *p.*, the blood *p.* in the pulmonary artery.
 pulse *p.*, the variation in blood *p.* occurring in an artery during the cardiac cycle; it is the difference between the systolic or maximum and diastolic or minimum *p.*'s and varies normally between 25 and 50 mm. of mercury.
 selection *p.*, see under selection.
 solution *p.*, the force driving atoms or molecules to leave a solid particle and enter into solution (*i.e.* to dissolve).
 standard *p.*, atmospheric *p.*
 systolic *p.*, see blood *p.*
 vapor *p.*, the partial *p.* exerted by a vapor.
 wedge *p.*, intravascular pressure obtained through a catheter placed in branches of the pulmonary or hepatic venous system.
 prester'num. *Mansuetum sterni.*
 presump'pative. Denoting an early stage in an inflammation prior to the formation of pus.
 presyl'vian. Denoting the anterior horizontal ramus of the Sylvian fissure.
 prestystole (pre-sis'to-le). Peristystole; late diastole; that part of diastole immediately preceding systole.
 presystol'ic. Peristystolic; late diastolic; relating to the interval immediately preceding systole.
 pretar'sal. Denoting the anterior, or inferior, portion of the tarsus.
 pretecta. Oad to the pars tecta (duodeni).
 prethy'roid, prethyroid'al, prethyroid'e'an. In front of the thyroid gland or cartilage.
 pretib'ial. Relating to the anterior portion of the leg; denoting especially certain muscles.
 pretymp'an'ic. Anterior to the drum of the ear.
 prevention (pre-ven-sep'shun). Contraception.
 preven'tive [L. *prae-venia* *p.* -ventus to come before, prevent].
 1. Prophylactic; warding off disease. 2. A prophylactic, or anything that arrests the threatened onset of disease.
 prevent'ion (pre-ven-to-ri-on) [*fr.* prevent, formed on the model of sanatorium]. An institution for the care of persons. especially children, of poor physique who are believed to be in danger of acquiring tuberculosis.
 prever'tib'ial. In front of the body of a vertebra or of the vertebral column.
 prever'tiginous (pre-vur-tig-in-us). Denoting a condition of vertigo or dizziness in which the subject tends to fall forward.
 preves'ical [L. *vesica* bladder]. Anterior to the bladder.
 previus [L. *prae* before + *via* way]. In the way; referring usually to anything obstructing the passages in childbirth.
 pre'zone. Prozone.
 pri'apism [*Præapism*]. Denoting the act of procreation. Persistent erection of the penis, especially when due to disease or excessive quantities of androgens, and not to sexual desire.
 priap'itis (pri-ä-p'itis). Inflammation of the penis.
 pri'apus (see priapism). The penis.
 Price-Jones, Cecil, English hematologist, 1863-1943. See P.-J. curve.
 prilocaine hydrochloride (NF, USAN). Citanest hydrochloride; 2-(propylamino)-o-propionololuidide hydrochloride; a local anesthetic agent of the amide type, related chemically and

pharmacologically to lidocaine hydrochloride; used for peridural, caudal, and nerve blocks, and regional and infiltration anesthesia.

primacy. The state of being primary, or foremost in rank or importance.

genital p., in psychoanalysis, the psychosexual phase of development during which the libido becomes preponderantly concentrated in the penis.

oral p., a state in which satisfaction is derived chiefly from mouth contacts, since the libido is concentrated mainly in the oral zone.

primal scene. See under scene.

primaquine phosphate (pri-mah'-kwin) (USP, BP). Plasmo-chin. SN 13,272; 8-[(4-amino-1-methylbutyl)amino]-6-methoxyquinoline phosphate (1:2); an antimalarial agent; found especially effective against *Plasmodium vivax*; terminating relapsing vivax malaria; usually administered with chloroquine.

primary. 1. The first or foremost, as a disease or symptoms to which others may be secondary or occur as complications. 2. Primitive. 3. Principal.

primate. An individual of the order *Primates*.

Primates (pri-mah'tez) [L. *primas* (*primas*), chief]. The highest order of mammals, including man, monkeys, and lemurs embraced in the two suborders: *Anthropoidea* and *Lemuroidea*, or *Prosimiae*.

pri'merite [L. *primus* first + G. *meris* part]. Protomerite.

primidone (USP, BP). Mysoline; 5-ethyl-5-dihydro-5-phenyl-4,6-(1H,5H)-pyrimidinedione. An anticonvulsant drug used in the management of grand mal and psychomotor epilepsy; relatively free from serious toxic effects.

primigravida (pri-mi-grav'i-dah) [L. *primus* first + *gravidus*, pregnant, as a pregnant woman]. Unigravida; a woman who is pregnant for the first time.

primipara (pri-mip'-ah-rah) [L. *fr.* *primus* first + *paria* to bring forth]. Unipara; a woman who has been delivered of an infant with a gestational age of 20 weeks or more.

primiparity. The condition of being a primipara.

primip'arous. Uniparous; denoting a primipara.

pri'mite. Protomerite.

pri'mitive [L. *primitivus*, *fr.* *primus* first]. Primary; early in point of time.

primor'dial. 1. Relating to a primordium. 2. Primary; formed early in the course of development.

primor'dium [L. *origin*, *fr.* *primus* first + *ordior* to begin]. Anlage (Ger.); an aggregation of cells in the embryo indicating the first trace of an organ or structure.

prim'ula [Mediev. L. *primrose*, fem. of L. *primulus* first]. The rhizome and roots of a number of species of *Primula* (family *Primulaceae*), primrose or cowslip. In some sensitive persons contact with the plant causes a rash; has been used as expectorant, diuretic, and anthelmintic.

princeps [L. chief, *fr.* *primus* first + *capio* to take, choose]. Principal; a term used to distinguish several arteries.

p. cervic'is, chief of the neck; ramus descendens of the occipital artery, supplying the complexus muscle.

p. hal'lucis, chief of the great toe; the plantar digital artery, arising from the termination of the dorsalis pedis in the sole of the foot and supplying the adjacent sides of the first and second toes.

p. pollic'is, *arteria p. pollic'is*.

Princeteau (prais-to'), L. R., French physician, *1884. See P.'s tubercle.

principle [L. *principium* a beginning, *fr.* *princeps*, chief]. 1. A continuously acting power or force. 2. The essential ingredient in a drug or chemical compound.

active p., a constituent of a drug, usually an alkaloid or glycoside, upon the presence of which the characteristic therapeutic action of the substance largely depends.

antianemic p., the material in liver (and certain other tissues) that stimulates hemopoiesis in pernicious anemia; for practical purposes, the antianemic effect of extracts from such tissues is approximately equivalent to the content of vitamin B₁₂.

azygos vein p., based on the observation that animals can survive prolonged vena caval occlusion without sequelae; if blood from the azygos vein alone is permitted to enter the heart, patients are perfused during cardiac and pulmonary bypass at flows much less than the normal resting cardiac output.

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on a chest radiograph. SEE Fleischner lines, under line. SYN platelike a.

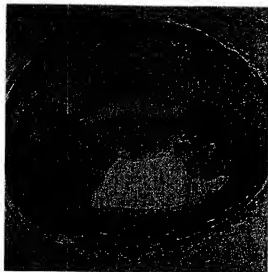
at-e-lec-tat-ic (at-ē-lek-tat'ik). Relating to atelectasis.

ate-lio (ā-tē-lē-ō). SYN ateliosis.

atel-i-o-sis (ā-tē-lē-ō'sis). Incomplete development of the body or any of its parts, as in infantilism and dwarfism. SYN atelia. [G. *atēlēs*, incomplete, + *-osis*, condition]

atel-i-o-ic (ā-tē-lē-ō'ik). Marked by ateliosis.

atel-op-id-tox-in (ā-tē-lē-ōp'id-tok'sin). A potent poison from the skin of the golden arrow frog (*Ateolopus zeteki*) of Central and South America.



atherosclerosis: cross section of renal artery showing significant luminal narrowing by atherosclerosis; hematoxylin and eosin, $\times 10$

aten-o-lol (ā-ten'ō-lol). A relatively cardioselective β -adrenergic blocking agent used primarily in the treatment of angina pectoris and hypertension; it possesses lower lipid solubility than other members of this class and hence apparently less central nervous system side effects.

athe-lio (ā-thē-lē-ō). Congenital absence of the nipples. [G. *a-priv* + *thēlē*, nipple]

ather-ec-to-my (ath-ē-rek'tō-mē). Any removal by surgery or specialized catheterization of an atheroma in the coronary or any other artery.

coronary a., instrumental removal, via catheter, of atheromas in coronary arteries.

directional a., removal of coronary atherometer with instrumental catheter.

ather-man-ey (ā-ther'man-ē). Impermeability to heat. [G. *athermantos*, not heated, fr. *a-priv* + *thermainō*, to heat, fr. *thermē*, heat]

ather-ma-nous (ā-ther'mā-nūs). Absorbing radiant heat; not permeable to heat rays.

ather-mo-sys-tal-ic (ā-ther'mō-sis-tal'ik). Not contracted or constricted by ordinary variations of temperature; said of certain tissues. [G. *a-priv* + *thermos*, hot, + *sys-talikos*, constricting]

△ **athero-**. Gruel-like, soft, pasty materials; atheroma, atheromatous. [G. *athērē*, gruel, porridge]

ath-er-o-em-bo-lism (ath'ēr-ō-em'bō-lizm). Cholesterol embolism, with or without calcific matter, originating from an atheroma of the aorta or other diseased artery.

ath-er-o-gen-e-sis (ath'ēr-ō-jen'ē-sis). Formation of atheroma, important in the pathogenesis of arteriosclerosis.

ath-er-o-gen-ic (ath'ēr-ō-jen'ik). Having the capacity to initiate, increase, or accelerate the process of atherogenesis.

ath-er-o-ma (ath'ēr-ō'mā). The lipid deposits in the intima of arteries, producing a yellow swelling on the endothelial surface; a

characteristic of atherosclerosis. SYN atheros. [G. *athērē*, gruel, + *-ōma*, tumor]

ath-er-o-ma-tous (ath'ēr-ō'mā-tūs). Relating to or affected by atheroma.

△ **ath-er-o-scle-ro-sis** (ath'ēr-ō-skler-ō'sis). Arteriosclerosis characterized by irregularly distributed lipid deposits in the intima of large and medium-sized arteries, causing narrowing of arterial lumens and proceeding eventually to fibrosis and calcification. Lesions are usually focal and progress slowly and intermittently. Limitation of blood flow accounts for most clinical manifestations, which vary with the distribution and severity of lesions. In lower animals, a. of swine and fowl closely resemble human a. SYN nodular sclerosis. [G. *athērē*, gruel, + *sclerosis*]

Atherosclerosis, the most common form of arteriosclerosis, is a complex process that begins with the appearance of cholesterol-laden macrophages (foam cells) in the intima of an artery. Smooth muscle cells respond to the presence of lipid by proliferating, under the influence of platelet factors. A plaque forms at the site, consisting of smooth muscle cells, leukocytes, and further deposition of lipid; in time the plaque becomes fibrotic and may calcify. Expansion of an atherosclerotic plaque leads to gradually increasing obstruction of the artery and ischemia of tissues supplied by it. Ulceration, thrombosis, or embolization of a plaque, or intimal hemorrhage and dissection, can cause more acute and severe impairment of blood flow, with the risk of infarction. These are the principal mechanisms of coronary artery disease (arteriosclerotic heart disease with or without heart failure, angina pectoris, myocardial infarction), peripheral vascular disease (particularly occlusive disease of the lower extremity causing intermittent claudication or gangrene), and stroke (cerebral infarction due to occlusion of carotid or intracranial arteries). Independent risk factors for atherosclerosis are male sex, advancing age, the postmenopausal state, a family history of atherosclerosis, cigarette smoking, hypertension, diabetes mellitus, elevated plasma LDL cholesterol, elevated plasma homocysteine, overweight, and a sedentary life-style. Mounting evidence suggests that elevation of plasma levels of triglycerides, fasting insulin, fibrinogen, apolipoproteins A and B, and lipoprotein (a) are also independent risk factors. The diagnosis of atherosclerosis is usually based on history and physical examination and confirmed by angiography, Doppler ultrasonography, and other imaging techniques. Treatment is largely mechanical: balloon stretching, laser ablation, or surgical removal of plaques, and various bypass and grafting procedures. The prevention of atherosclerosis is a major objective of modern medicine. Preventive measures include regular vigorous exercise, a diet low in fat and cholesterol, maintenance of a healthful weight, avoidance of tobacco, and use of pharmacologic agents as indicated (e.g., rigorous control of hypertension and diabetes mellitus, reduction of elevated cholesterol, estrogen replacement therapy after menopause). See free radical; low-fat diet.

ath-er-o-scle-rot-ic (ath'ēr-ō-skler-ō'ik). Relating to or characterized by atherosclerosis.

ath-er-o-sis (ath'ēr-ō'sis). SYN atheroma.

ath-er-o-throm-bo-sis (ath'ēr-ō-throm'bō'sis). Thrombus formation in an atheromatous vessel.

ath-er-o-throm-bo-ic (ath'ēr-ō-throm'bō'ik). Denoting, characteristic of, or caused by atherothrombosis.

ath-e-to-id (ath'ē-toy'd). Resembling atheros.

ath-e-to-sic, **ath-e-to-ic** (ath'ē-tō'sik, -tō'ik). Pertaining to, or marked by, athetosis.

ath-e-to-sis (ath'ē-tō'sis). A condition in which there is a constant succession of slow, writhing, involuntary movements of flexion, extension, pronation, and supination of the fingers and hands, and sometimes of the toes and feet. Usually caused by an extrapyramidal lesion. SYN extrapyramidal cerebral palsy, Hammond disease. [G. *athetos*, without position or place]

1,2,3-propane-tri-ol (prō-pān-trī'ol). *syn* glycerol.

prop-an-i-did (prō-pān-i-'did). A short-acting eugenol used intravenously for induction of general anesthesia.

prop-a-no-ic acid (prō-pā-nō'ik). *syn* propionic acid.

prop-a-nol (prō-pā-nol). *syn* propyl alcohol.

prop-a-no-yl (prō-pā-nō-yl). *syn* propionyl.

prop-an-the-line bro-mide (prō-pān-thē-lēn). The isopropyl analogue of methantheline bromide; an anticholinergic agent.

prop-a-r-caine hy-dro-chlo-ride (prō-par'ā-kān). A surface anesthetic agent used in ophthalmology. *syn* proxymetacaine hydrochloride.

prop-a-tyl ni-trate (prō-pā-tīl). A coronary vasodilator.

prop-ene (prō-pēn). *syn* propylene.

prop-ent-dy-o-pents (prō-pēnt-dī'ō-pentz). *see* bilirubinoids.

prop-ē-nyl (prō-pē-nīl). The radical, $-CH=CH-CH_2$.

prop-ep-sin (prō-pep'sin). *syn* pepsinogen.

prop-ep-tone (prō-pep'tōn). A nondescript mixture of intermediate products in the conversion of native protein to peptide.

prop-er-din (prō-per'din). A globulin in normal serum involved in resistance to infection that participates, in conjunction with other factors, in an alternative pathway to the activation of the terminal components of complement; a deficiency of p. results in the lack of stabilization of the alternative C3-convertase enzyme (an X-linked recessive disorder). *see* also *properdin system*, *component of complement*, *factor P*. [pro + *L. perdo*, to destroy]

prop-er-i-to-ne-al (prō-per-i-tō-nē'āl). In front of the peritoneum.

prop-hage (prō'fāj). *syn* probacteriophage.

defective p., *see* defective bacteriophage.

prop-hase (prō'fāz). The first stage of mitosis or meiosis, consisting of linear contraction and increase in thickness of the chromosomes (each composed of two chromatids) accompanied by migration of the two daughter centrioles and their asters toward the poles of the cell. In meiosis, p. is complex and can be subdivided into stages: preleptotene, leptotene, zygotene, pachytene, diplotene, and diakinesis. [G. *prophasis*, from *prophainō*, to fore-shadow]

prop-hen-ryd-a-mine ma-le-ate (prō-fen-pī-rīd'ā-mēn). *syn* pheniramine maleate.

prop-phy-lac-tic (prō-pī-lak'tik). 1. Preventing disease; relating to prophylaxis. *syn* preventive. 2. An agent that acts to prevent a disease. [G. *prophylaktikos*; *see* prophylaxis]

prop-phy-lax-is, pl. prop-phy-lax-es (prō-pī-lak'sis, -ēz). Prevention of disease or of a process that can lead to disease. [Mod. L. fr. G. *pro-phylaxō*, to guard before, take precaution]

active p., use of an antigenic (immunogenic) agent to actively stimulate the immunologic mechanism.

chemical p., the administration of chemicals or drugs to members of a community to reduce the number of carriers of a disease and to prevent others contracting the disease.

dental p., a series of procedures whereby calculus, stain, and other accretions are removed from the clinical crowns of the teeth, and the enamel surfaces are polished.

passive p., use of an antiserum from another person or animal to provide temporary protection against a specific infectious or toxic agent.

prop-i-cil-lin (prō-pī-sīl'in). A semisynthetic acid-stable penicillin that may be more effective than penicillin G. *syn* α-phenoxypenicillin potassium.

prop-i-o-cor-tin (prō-pā-ō-kōr'tēn). An endogenous polypeptide that might be a precursor to the enkephalins. Cf. *proenkephalin*.

prop-i-o-lac-tone (prō-pē-ō-lak'tōn). Used to sterilize plasma, vaccines, and tissue grafts.

prop-i-o-nate (prō-pē-ō-nāt). A salt or ester of propionic acid.

Prop-i-on-i-bac-ter-i-um (prō-pē-on-i-bak-tēr'ē-ūm). A genus of nonmotile, non-spore-forming, anaerobic to aerotolerant bacteria (family Propionibacteriaceae) containing Gram-positive rods that are usually pleomorphic, diptheroid, or club shaped, with one end rounded, the other tapered or pointed. Some cells may be coccoid, elongate, bifid, or even branched. The cells usually occur singly, in pairs, in V and Y configurations, short chains, or

clumps in "Chinese character" arrangement. The metabolism of these organisms is fermentative, and the products of fermentation include combinations of propionic and acetic acids. These organisms occur in dairy products, on human skin, and in the intestinal tracts of humans and other animals. They may be pathogenic. The type species is *P. freudenreichii*.

P. ac'nes, a species of bacteria commonly found in acne pustules, although it occurs in other types of lesions in humans and even as a saprophyte in the intestine, skin, hair follicles, and in sewage. *P. freudenreichii*, a bacterial species found in raw milk. Swiss cheese, and other dairy products; it is the type species of the genus *P.*

P. jensenii, a bacterial species found in dairy products, silage, and occasionally in infections.

P. propion'icus, *syn* *Acetia propionica*.

prop-i-on-ic acid (prō-pē-on'ik). Methylethylacetic acid; ethylformic acid; found in sweat; elevated in cases of ketotic hyperglycemia and in cases of biotin deficiency. *syn* propionic acid.

prop-i-on-ic acid-d-emia (prō-pē-on'ik-as-i-dē'mē-ā). *syn* ketotic hyperglycemia.

prop-i-o-nyl (prō-pē-ō-nīl). CH_3CH_2CO- ; the acyl radical of propionic acid. *syn* propionyl.

prop-i-o-nyl-CoA (prō-pē-ō-nīl-kō-ā). The coenzyme A thioester derivative of propionic acid; an intermediate in the degradation of L-valine, L-isoleucine, L-threonine, L-methionine, and odd-chain fatty acids; a precursor for the synthesis of odd-chain fatty acids; it accumulates in individuals with a deficiency of p.-CoA carboxylase.

p.-CoA carboxylase, an enzyme that catalyzes the reaction of p.-CoA with CO_2 and ATP to produce ADP, orthophosphate, and p-methylmalonyl-CoA; a biotin-dependent enzyme; an inherited deficiency of this enzyme will lead to propionic acidemia and developmental retardation.

prop-i-o-nyl-gly-cine (prō-pē-ō-nīl-glī'sēn). A minor metabolite that accumulates in individuals with propionic acidemia.

prop-i-t-o-caine hy-dro-chlo-ride (prō-pī-t'ō-kān). *syn* prilocaine hydrochloride.

prop-la-sia (prō-plā-zē-ā). That state of cell or tissue in which activity is increased above that of euplasia, i.e., characterized by stimulation, repair, or regeneration. [pro + *G. plassō*, to form]

prop-plas-ma-cyte (prō-plaz'mā-sīt). A cell in the process of differentiating from a plasmablast to a mature plasma cell.

prop-plex-us (prō-plek'sūs). The choroid plexus in the lateral ventricle of the brain.

prop-po-fol (prō-pō-fōl). An oil-in-water emulsion of 1,6-diisopropylphenol, a hypnotic with rapid onset and short duration of action; used intravenously for induction and maintenance of general anesthesia. *syn* 2,6-diisopropyl phenol.

prop-po-si-tus, pl. prop-po-si-ti (prō-pōz'i-tis, -itē). 1. Proband, usually referring to the first index case to be ascertained. Cf. *consulant*. 2. A premise; an argument. [L. fr. *propono*, pp. -positus, to lay out, propound]

prop-pox-y-phene hy-dro-chlo-ride (prō-pok'si-fēn). A nonanesthetic, orally effective weak narcotic analgesic structurally related to methadone and used for the relief of mild to moderate pain; it is less effective than codeine. *syn* dextropropoxyphene hydrochloride.

prop-pox-y-phene nap-syl-ate (prō-pok'si-fēn). A weak narcotic analgesic. *syn* dextropropoxyphene napsylate.

prop-ran-ol-ol hy-dro-chlo-ride (prō-pran'ō-lōl). An adrenergic β-receptor blocking agent; used in the treatment of angina pectoris, hypertension, cardiac arrhythmias, and other conditions.

prop-ri-e-tary name (prō-prī-ē-tār-ē). The protected brand name or trademark, registered with the U.S. Patent Office, under which a manufacturer markets its product. It is written with a capital initial letter and is often further distinguished by a superscript R in a circle (®). Cf. generic name, nonproprietary name. [L. *proprietas*, ownership]

prop-ri-o-ception (prō-prī-ō-sep'shun). A sense or perception, usually at a subconscious level, of the movements and position of the body and especially its limbs, independent of vision; this

p. gutta'ta, *p.* occurring abruptly in round patches of small size; seen in young persons following streptococcal infections.

p. gyra'ta, *p.* circinate in which there is a coalescence of the rings giving rise to figures of various outlines.

p. nummula'ris, *p.* in which the lesions are discrete and discoid.

palmar p., patchy, hyperkeratotic *p.* affecting contact points of the volar surface of fingers and palms, alone or with mild *p.* elsewhere; believed to be an isomorphic response, it may affect one palm involved in a sport or occupation.

p. puncta'ta, *p.* in which the individual lesions are papules, each red in color and tipped with a single white scale.

pustular p., (1) an extensive exacerbation of *p.*, with pustule formation in the normal and psoriatic skin, fever, and granulocytosis; sometimes precipitated by oral steroids; *syn* generalized pustular *p.* of Zambusch. (2) a local pustular eruption of the palms and soles, occurring most commonly in a patient with *p.*; difficult to distinguish from acrodermatitis continua.

psō rī at-ic (sō-rē-ā'tik). Relating to psoriasis.

psō-rop'tes (sō-rop'tēr). A genus of itch or mange mites (family Cheyletiidae), including the species *P. cyniculi* (the scab mite of rabbits), *P. equi* (the mange or body mite of horses), and *P. ovis* (the common scab mite of sheep and cattle). [*G. psōra*, itch]

PSP Abbreviation for phenolsulfonphthalein.

△**psych-**. *see* psycho-

psy-chal-ga-lia (sī-kāl-gā'lē-ā). *syn* psychalgia (1).

psy-chal-gia (sī-kāl'jē-ā). 1. Distress attending a mental effort, noted especially in melancholia. *syn* phrenalgia (1), psychalgia. 2. *syn* psychogenic pain. [*psych-* + *G. algos*, pain]

psy-chia-lia (sī-kā'lē-ā). A rarely used term for an emotional condition characterized by auditory and visual hallucinations.

psy-cha-nop-sia (sī-kā-nōp-sē-ā). *syn* mind blindness. [*psych-* + *G. an-priv*, + *opsis*, vision]

psy-cha-tax-ia (sī-kā-tak'sē-ā). Mental confusion; inability to fix one's attention or to make any continued mental effort. [*psych-* + *G. ataxia*, confusion]

psy-che (sī'kē). Term for the subjective aspects of the mind, self, soul; the psychologic or spiritual as distinct from the bodily nature of persons. [*G. mind*, soul]

△**psyche-**. *see* psycho-

psy-che-del-ic (sī-kē-del'ik). 1. Pertaining to a rather imprecise category of drugs with mainly central nervous system action, and with effects said to be the expansion or heightening of consciousness, e.g., LSD, hashish, mescaline. 2. A hallucinogenic substance, visual display, music, or other sensory stimulus having such action. *syn* hallucinogenic. [*psyche-* + *G. delōō*, to manifest]

psy-chi-at-ric (sī-kē-at'rik). Relating to psychiatry.

psy-chi-at-rics (sī-kē-at'riks). *syn* psychiatry.

psy-chi-a-trist (sī-kē-ā'trist). A physician who specializes in psychiatry.

psy-chi-a-try (sī-kē-ā'trē). 1. The medical specialty concerned with the diagnosis and treatment of mental disorders. 2. The diagnosis and treatment of mental disorders. For some types of *p.* not listed below, see also subentries under therapy, psychotherapy, psychoanalysis. *syn* psychiatrics. [*psych-* + *G. iatrea*, medical treatment]

analytic p., *syn* psychoanalytic *p.*

biologic p., a branch of *p.* that emphasizes molecular, genetic, and pharmacologic approaches in the diagnosis and treatment of mental disorders.

child p., the branch of *p.* that deals with the emotional and mental disorders of children.

community p., *p.* focusing on the detection, prevention, early treatment, and rehabilitation of individuals with emotional disorders and social deviance as they develop in the community rather than as encountered one-on-one, in private practice, or at larger centralized psychiatric facilities; particular emphasis is placed on the social-interpersonal-environmental factors that contribute to mental illness.

contractual p., an older term for psychiatric intervention voluntarily assumed by the patient, who is prompted by personal diffi-

culties or suffering and who retains control over participation with the psychiatrist.

cross-cultural p., a field of *p.* with interest in the study of psychologic and psychiatric phenomena as differentially expressed in the cultures of different countries.

descriptive p., that aspect of the practice of psychiatry that deals with the diagnosis of mental disorders.

dynamic p., *syn* psychoanalytic *p.*

existential p., *syn* existential psychotherapy.

forensic p., **legal p.**, the application of *p.* in courts of law, e.g., in determinations for commitment, competency, fitness to stand trial, responsibility for crime.

industrial p., the application of the principles of *p.* to problems in business and industry.

orthomolecular p., an approach to *p.* that focuses on the use of megavitamins and nutrition in the treatment of such mental illnesses as the schizophrenic disorders.

psychoanalytic p., psychiatric theory and practice emphasizing the principles of psychoanalysis. *syn* analytic *p.*, dynamic *p.*

social p., an approach to psychiatric theory and practice emphasizing the cultural and sociologic aspects of mental disorder and treatment; the application of *p.* to social problems. *see* also community *p.*

psy-chic (sī'kik). 1. Relating to the phenomena of consciousness, mind, or soul. *syn* psychical. 2. A person supposedly endowed with the power of communicating with spirits; a spiritualistic medium. [*G. psychikos*]

psy-chi-cal (sī'ki-kāl). *syn* psychic (1).

psy-chism (sī'kizm). The theory that a principle of life pervades all nature. [*G. psychē*, soul]

△**psycho-**, **psych-**, **psychē-**. The mind; mental; psychologic. [*G. psychē*, soul, mind]

psy-cho-a-cous-tics (sī'kō-ā-kōō'stiks). 1. A discipline combining experimental psychology and physics that deals with the physical features of sound as related to audition, as well as with the physiology and psychology of sound receptor processes. 2. The science pertaining to the psychologic factors that influence one's awareness of sound. [*psycho-* + *G. akoustikos*, relating to hearing]

psy-cho-a-ctive (sī'kō-āktiv). Possessing the ability to alter mood, anxiety, behavior, cognitive processes, or mental tension; usually applied to pharmacologic agents.

psy-cho-al-ler-gy (sī'kō-ā-lēr-jē). A rarely used term for a sensitization to emotionally charged symbols.

psy-cho-a-nal-y-sis (sī'kō-ā-nāl'ī-sis). 1. A method of psychotherapy, originated by Freud, designed to bring preconscious and unconscious material to consciousness primarily through the analysis of transference and resistance. *syn* psychoanalytic therapy. *see* also freudian *p.* 2. A method of investigating the human mind and psychologic functioning, interpretations of resistances, and the patient's emotional reactions to the analyst plus use of free association and dream analysis in the psychoanalytic situation. 3. An integrated body of observations and theories on personality development, motivation, and behavior. 4. An institutionalized school of psychotherapy, as in jungian or freudian *p.* [*psycho-* + *analysis*]

active p., an older term for *p.* in which the analyst intervenes directly and actively in the patient's life, e.g., by making prohibitions, assigning tasks.

adlerian p., *syn* individual psychology.

freudian p., the theory and practice of *p.* and psychotherapy as developed by Freud, based on: 1) his theory of personality, which postulates that psychic life is made up of instinctual and socially acquired forces, or the id, the ego, and the superego, each of which must constantly accommodate to the other; 2) his discovery that the free-association technique of verbalizing for the analyst all thoughts without censoring any of them is the therapeutic tactic that reveals the areas of conflict within a patient's personality; and 3) that the vehicle for gaining this insight and next, on this basis, readjusting one's personality is the learning a patient does in first developing a stormy emotional bond with the analyst (transference relationship) and next successfully breaking this bond.

response in question. SEE ALSO respondent c. SYN stimulus substitution.

escape c., the technique whereby an organism learns to terminate unpleasant or punishing stimuli by making the appropriate new response which stops the delivery of such stimuli. Cf. avoidance c. SYN escape training.

higher order c., the use of a previously conditioned stimulus to condition further responses, in much the same way unconditioned stimuli are used.

instrumental c., c. in which the response is a prerequisite to achieving some goal; often used as a synonym for operant c., but some psychologists make distinctions in the usages of these two terms.

operant c., a type of c. developed by Skinner in which an experimenter waits for the target response (head scratching) to be conditioned to occur (emitted) spontaneously, immediately after which the organism is given a reinforcer reward; after this procedure is repeated many times, the frequency of emission of the targeted response will have significantly increased over its pre-experiment base rate. SEE ALSO schedules of reinforcement, under schedule. SYN skinnerian c.

pavlovian c., SYN respondent c.

respondent c., a type of c., first studied by I. P. Pavlov, in which a previously neutral stimulus (bell sound) elicits a response (salivation) as a result of pairing it (associating it contiguously in time) a number of times with an unconditioned or natural stimulus for that response (food shown to a hungry dog). SYN pavlovian c. **second-order c.**, the use of a previously successfully conditioned stimulus as the unconditioned stimulus for further c.

skinnerian c., SYN operant c.

trace c., c. when there is no temporal overlap between the c. stimulus and the unconditioned stimulus.

con-dom (kon'dom). Sheath or cover for the penis or vagina for use in the prevention of conception or infection during coitus.

con-duc-tance (kon-dŭk'tans). 1. A measure of conductivity; the ratio of the current flowing through a conductor to the difference in potential between the ends of the conductor; the c. of a circuit is the reciprocal of its resistance. 2. The ease with which a fluid or gas enters and flows through a conduit, air passage, or respiratory tract; the flow per unit pressure difference.

con-duc-tion (kon-dŭk'shŭn). 1. The act of transmitting or conveying certain forms of energy, such as heat, sound, or electricity, from one point to another, without evident movement in the conducting body. 2. The transmission of stimuli of various sorts by living protoplasm. [L. *con-ducere*, pp. *ducere*, to lead, conduct] **aberrant ventricular c.**, abnormal intraventricular c. of a supra-ventricular beat, especially where surrounding beats are normally conducted. SYN ventricular aberration.

accelerated c., any pathologically increased speed of c.; usually occurs between the atrium and ventricles as in the Wolff-Parkinson-White and Lown-Ganong-Levine syndromes; such accelerated pathways provide the bases for particular forms of reentry tachycardia.

air c., in relation to hearing, the transmission of sound to the inner ear through the external auditory canal and the structures of the middle ear.

anomalous c., c. of cardiac electrical impulses through any abnormal pathway.

antegrade c., SYN anterograde c.

antegrade c., c. in the expected normal direction between any cardiac structures. SYN anterograde c., forward c., orthograde c.

atrioventricular c. (AVC), AV c., forward c. of the cardiac impulse from atria to ventricles via the AV node or any bypass tract, represented in the electrocardiogram by the PR interval. PH c. time is from the onset of the P wave to the first high-frequency component of the His bundle electrogram (normally 119 ± 38 msec); A-H c. time is from the onset of the first high-frequency component of the atrial electrogram to the first high-frequency component of the His bundle electrogram (normally 92 ± 38 msec); P-A conduction time is from the onset of the P wave to the onset of the atrial electrogram (normally 27 ± 18 msec).

avalanche c., the discharge of an impulse from a neuron into a

large number of neurons of the same physiologic system, thus producing the liberation of a very large amount of nervous energy by a given stimulus.

bone c., in relation to hearing, the transmission of sound to the inner ear through vibrations applied to the bones of the skull. SYN osteophony.

concealed c., c. of an impulse through a part of the heart without direct evidence of its presence in the electrocardiogram; c. is inferred only because of its influence on the subsequent cardiac cycle.

decremental c., impaired c. in a portion of a fiber because of progressively lessening response of the unexcited portion of the fiber to the action potential coming toward it; it is manifested by decreasing speed of c., amplitude of action potential, and extent of spread of the impulse.

delayed c., first-degree AV block. SEE atrioventricular block, intraventricular block, bundle-branch block.

forward c., SYN anterograde c.

intraatrial c., c. of the cardiac impulse through the atrial myocardium, represented by the P wave in the electrocardiogram.

intraventricular c., c. of the cardiac impulse through the ventricular myocardium, represented by the QRS complex in the electrocardiogram. HR c. time is from the onset of the first high-frequency component of the His bundle electrogram to the onset of the QRS complex of the surface electrocardiogram (normally 43 ± 12 msec); HV c. time is from the onset of the first high-frequency component of the His bundle electrogram to the onset of the ventricular electrogram (normally approximates the HR interval but may be a little shorter). SYN ventricular c.

nerve c., the transmission of an impulse along a nerve fiber.

orthograde c., SYN anterograde c.

Purkinje c., c. of the cardiac impulse through the Purkinje system.

retrograde VA c., c. backward from the ventricles or from the AV node into and through the atria. SYN retroconduction, ventriculoatrial c., VA c.

salutatory c., c. in which the nerve impulse jumps from one node of Ranvier to the next.

sinoventricular c., a rare form of c. of the sinus impulse during paralysis of the atrial muscle by hyperkalemia. The impulse leaves the sinus node and enters the internodal tracts rapidly achieving the junctional tissues but without inscribing a P wave due to the inactivation of the atrial muscle cells.

supernormal c., SYN supranormal c.

supranormal c., transmission of an impulse during the brief period of the cardiac cycle when it would be expected to fail if it occurred outside this time interval; considered to be better than expected rather than better than normal. Cf. supranormal excitability. SYN supernormal c.

synaptic c., the c. of a nerve impulse across a synapse.

ventricular c., SYN intraventricular c.

ventriculoatrial c. (VAC), VA c., SYN retrograde VA c.

con-duc-tiv-i-ty (kon-dŭk-tiv'i-tē). 1. The power of transmission or conveyance of certain forms of energy, as heat, sound, and electricity, without perceptible motion in the conducting body. 2. The property, inherent in living protoplasm, of transmitting a state of excitation; e.g., in muscle or nerve.

hydraulic c., ease of pressure filtration of a liquid through a membrane; specifically, $K_f = \eta/Q(A) (\delta x/\delta P)$, where K_f = hydraulic c., η = viscosity of the liquid being filtered, Q/A = volume of liquid filtered per unit time and unit area, and $\delta x/\delta P$ = reciprocal of the pressure gradient through the membrane; solute concentrations should be identical on both sides of the membrane. Also applied more loosely to measurements on a total membrane of unknown area and thickness with unmeasured fluid viscosity ($K = Q/\delta P$).

con-duc-tor (kon-dŭk'ter, -tŏr). 1. A probe or sound with a groove along which a knife is passed in slitting open a sinus or fistula; a grooved director. 2. Any substance possessing conductivity.

con-duit (kon'doo-it). A channel.

apical-aortic c., a valved c. between the LV apex and aorta, used

con-tam-i-nate (kon-tam'i-nāt). To cause or result in contamination. [L. *con-tamino*, to mangle, corrupt]

con-tam-i-na-tion (kon-tam-i-nā'shūn). 1. The presence of an infectious agent on a body surface; also on or in clothes, bedding, toys, surgical instruments or dressings, or other inanimate articles or substances including water, milk, and food or that infectious agent itself. 2. In epidemiology, the situation that exists when a population being studied for one condition or factor also possesses other conditions or factors that modify results of the study. 3. Freudian term for a fusion and condensation of meanings of words, percepts, or motivations for behavior. 4. The presence of foreign material that adulterates or renders impure a material whose composition is degraded. [L. *contaminare*, pp. -atus, to stain, defile]

con-tent (kon'tent). 1. That which is contained within something else, usually in this sense in the plural form, contents. 2. In psychology, the form of a dream as presented to consciousness. 3. Ambiguous usage for concentration (3); e.g., blood hemoglobin c. could mean either its concentration or the product of its concentration and the blood volume. [L. *contenus*, fr. *con-tineo*, pp. -tentus, to hold together, contain]

carbon dioxide c., the total carbon dioxide available from serum or plasma following addition of acid; measured routinely in hospital laboratories as a component of electrolyte profiles.
GC c., the amount of guanine and cytosine in a polynucleic acid usually expressed in mole fraction (or percentage) of total bases; the melting temperature of such biopolymers varies with the GC c.

latent c., the hidden, unconscious meaning of thoughts or actions, especially in dreams or fantasies.

manifest c., those elements of fantasy and dreams which are consciously available and reportable.

con-tig. SEE *contig. map*.

con-tig-u-i-ty (kon-ti-gū'i-tē). 1. Contact without actual continuity, e.g., the contact of the bones entering into the formation of a cranial suture. Cf. *contiguity*. 2. Occurrence of two or more objects, events, or mental impressions together in space (spatial c.) or time (temporal c.). [L. *contiguus*, touching, fr. *contingo*, to touch]

con-tig-u-ous (kon-tig'ū-ōs). Adjacent or in actual contact.

con-ti-nence (kon'ti-nens). 1. The ability to retain urine and/or feces until a proper time for their discharge. 2. Moderation, temperance, or self-restraint in respect to the appetites, especially to sexual intercourse. [L. *continentia*, fr. *con-tineo*, to hold back]

con-ti-nent (kon'ti-nent). Denoting continence.

con-tin-ued (kon-tin'ūd). Continuous; without intermission; said especially of protracted fever without apyretic intervals, such as typhoid fever, compared with the paroxysms of fever in malaria. [L. *continuo*, to join together, make continuous]

con-ti-nu-i-ty (kon-ti-nū'i-tē). Absence of interruption, a succession of parts intimately united, e.g., the unbroken conjunction of cells and structures that make up a single bone of the skull. Cf. *contiguity*. [L. *continuo*, continued]

con-tour (kon'toor). 1. The outline of a part; the surface configuration. 2. In dentistry, to restore the normal outlines of a broken or otherwise misshapen tooth, or to create the external shape or form of a prosthesis. [L. *con-* (intens.), + *torno*, to turn (in a lathe), fr. *tornus*, a lathe]

flange c., the design of the flange of a denture.

gingival c., the shape or form of the gingiva, either natural or artificial, around the necks of the teeth. *syn* gum c.

gum c., *syn* gingival c.

height of c., SEE *height of contour*.

△ **contra-**. Opposed, against. SEE ALSO *counter-*. Cf. *anti-*. [L.]

con-tra-angle (kon'trā-ang'gl). 1. One of the double or triple angles in the shank of an instrument by means of which the cutting edge or point is brought into the axis of the handle. 2. An extension piece added to the end of a dental handpiece which, through a set of bevel gears, changes the angle of the axis of rotation of the bur in relation to the axis of the handpiece.

con-tra-ap-er-ture (kon'trā-ap'er-choor). *syn* counteropening.

con-tra-bev-el (kon'trā-bev'ēl). A bevel located on the side opposite the customary side.

con-tra-cep-tion (kon'trā-sep'shūn). Prevention of conception or impregnation.

emergency hormonal c., *syn* morning after pill. *syn* postcoital c. *postcoital c.*, *syn* emergency hormonal c.

con-tra-cep-tive (kon'trā-sep'tiv). 1. An agent for the prevention of conception. 2. Relating to any measure or agent designed to prevent conception. [L. *contra*, against, + *conceptive*]

barrier c., a mechanical device designed to prevent spermatozoa from penetrating the cervical os; usually used in combination with a spermicidal agent, i.e., vaginal diaphragm.

combination oral c., a mixture of a steroid having progestational activity and an estrogen.

intrauterine c. device, SEE *intrauterine contraceptive device*, under *device*.

oral c., any orally effective preparation designed to prevent conception.

con-tract. 1 (kon-trak't). To shorten; to become reduced in size; in the case of muscle, either to shorten or to undergo an increase in tension. 2 (kon-trak't). To acquire by contagion or infection. 3 (kon'trak). An explicit bilateral commitment by psychotherapist and patient to a defined course of action to attain the goal of the psychotherapy. [L. *contracto*, pp. -tractus, to draw together]

con-trac-tile (kon-trak'til). Having the property of contracting.

con-trac-tile-i-ty (kon-trak-til'i-tē). The ability or property of a substance, especially of muscle, of shortening, or becoming reduced in size, or developing increased tension.

cardiac c., a measure of cardiac pump performance, the degree to which muscle fibers can shorten when activated by a stimulus independent of preload and afterload.

con-trac-tion (C) (kon-trak'tshūn). 1. A shortening or increase in tension; denoting the normal function of muscle. 2. A shrinkage or reduction in size. 3. Heart beat, as in premature c. SEE also *entries* under *beat*. [L. *contractus*, drawn together] *after-c.*, SEE *aftercontraction*.

anodal closure c. (ACC, ANCC), obsolete term for the momentary c. of a muscle under the influence of the positive pole when the electrical circuit is established.

anodal opening c. (ANOC, AOC), obsolete term for the momentary c. of a muscle under the influence of the positive pole when the circuit is broken.

automatic c., *syn* automatic *beat*.

Braxton Hicks c., rhythmic myometrial activity occurring during the course of a pregnancy that usually causes no pain for the patient.

cathodal closure c. (CaCC, CCC), obsolete term for the momentary c. of a muscle under the influence of the negative pole when an electrical circuit is established.

cathodal opening c. (CaOC, COC), obsolete term for the momentary c. of a muscle under the influence of the negative pole when the circuit is broken.

closing c., c. produced at the time of closing of the circuit when using direct current to stimulate the muscle.

escape c., *syn* escape *beat*.

escape ventricular c., an escape beat arising in the ventricle. *fibillary c.'s*, c.'s occurring spontaneously in individual muscle fibers; they are seen commonly a few days after damage to the motor nerves supplying the muscle, and this type of activity is distinguished from fasciculation, which is related to activation of motor units.

front-tap c., c. of the calf muscles when the anterior surface of the leg is struck. *syn* Gowers c.

Gowers c., *syn* front-tap c.

hourglass c., constriction of the middle portion of a hollow organ, such as the stomach or the gravid uterus.

hunger c.'s, strong c.'s of the stomach associated with hunger pains.

idiomuscular c., *syn* myoedema.

isometric c., force development at constant length. Cf. *isotonic c.*

densitometry, measurement of line spread function (microdensitometry). 5. An instrument for measuring the extent to which a material absorbs or reflects light. [*L. densitas*, density, + *G. mensura*, measure]

densitometry (den-si-tom'ē-tre). A procedure utilizing a densitometer.

densi-ty (p) (den-'si-tē). 1. The compactness of a substance; the ratio of mass to unit volume, usually expressed as *g/cm³* (*kg/m³* in the SI system). 2. The quantity of electricity on a given surface or in a given time per unit of volume. 3. In radiological physics, the quantity to light of an exposed radiographic or photographic film; the darker the film, the greater the measured d. 4. In clinical radiology, a less exposed area on a film, corresponding to a region of greater x-ray attenuation (radiopacity) in the subject; the more light transmitted by the film, the greater the d. of the subject; this is not actually the opposite of the prior definition, since one concerns film d. and the other subject d. [*L. densitas*, fr. *densus*, thick]

bone d., quantitative measurement of the mineral content of bone, used as an indicator of the structural strength of the bone and as a screen for osteoporosis

buoyant d., the d. that allows a substance to float in some standard fluid.

count d., syn photon d.

flux d., (1) syn flux (4); (2) either particle flux d., the particle fluence rate, or energy flux d., the energy fluence rate of intensity. Cf. fluence.

incidence d., the person-time incidence rate.

optic d. (OD), syn absorbance.

photon d., the number of counted events recorded in scintigraphy per square centimeter or per square inch of imaged area. syn count d.

spin d., the number of nuclear dipoles per unit volume.

vapor d., the mass per unit volume of a vapor; since the vapor d. changes with temperature and pressure, it is commonly expressed at a specific gravity, i.e., the weight of the vapor divided by the weight of an equal volume of a reference gas (e.g., oxygen or hydrogen) at the same temperature and pressure.

dent., denti-, dento-. Teeth; dental. SEE ALSO odont-. [*L. dens*, tooth]

den-tal (den-'tāl). Relating to the teeth. [*L. dens*, tooth]

den-tal en-gine. The motive power of a dental handpiece that causes it to rotate.

den-tal-gia (den-tal'jē-ā). syn toothache. [*L. dens*, tooth, + *G. algos*, pain]

den-tate (den-'tāt). Notched; toothed; cogged. [*L. dentatus*, toothed]

den-tal-ec-to-my (den-tal-'tek'ō-mē). Surgical destruction of the dentate nucleus of the cerebellum. [dentate (nucleus) + *G. ectomē*, excision]

den-tal-tum (den-tāl'tūm, den-tāl'tūm). syn dentate nucleus of cerebellum. [*L. neut. of dentatus*, toothed]

den-tes (den-'tez). Plural of dens. [*L.*]

den-ti-. SEE dent-.

den-tia (den-'tē-ā). The process of tooth development or eruption. Also serves to denote a relationship to the teeth. [dent- + suffix -ia, condition, process]

d. praecox (den-tē-ā prē-cōks), premature tooth eruption. [*L. praematurus*]

d. tarda (den-tē-ā tar'dā), delayed tooth eruption. [*L. delayed*]

den-ti-cle (den-'ti-kl). 1. syn endlath. 2. A toothlike projection from a hard surface. [*L. denticulus*, a small tooth]

den-ti-cu-late, **den-ti-cu-lat-ed** (den-tik'ū-lāt, -lāt-ed). 1. Finely dented, notched, or serrated. 2. Having small teeth.

den-ti-form (den-'ti-fōrm). Tooth-shaped; pegged. SEE ALSO odontoid (1). [*den-ti* + *L. forma*, form]

den-ti-frice (den-'ti-fris). Any preparation used in the cleansing of the teeth, e.g., a tooth powder, toothpaste, or tooth wash. [*L. dentifricium*, fr. *dens*, tooth, + *frico*, pp. *frictus*, to rub]

den-tig-er-ous (den-tij'er-'ūs). Arising from or associated with teeth, as a d. cyst. [den-ti- + *L. gero*, to bear]

den-ti-la-bi-al (den-'ti-lā-bē-āl). Relating to the teeth and lips. [den-ti- + *L. labium*, lip]

den-ti-lin-gual (den-ti-'ling'gwāl). Relating to the teeth and tongue. [den-ti- + *L. lingua*, tongue]

den-tin (den-'tin). syn dentine. [*L. dens*, tooth]

hereditary opalescent d., (1) syn dentinogenesis imperfecta; (2) syn opalescent d.

hypersensitive d., exposed d., usually at the cervical portion of a tooth, painful to touch, sweetness, or temperature changes.

interglobular d., imperfectly calcified matrix of d. situated between the calcified globules near the dental periphery.

irregular d., irritation d., syn tertiary d.

opalescent d., d. usually associated with dentinogenesis imperfecta. It gives an unusual opalescent or translucent appearance to the teeth. syn hereditary opalescent d. (2).

peritubular d., an electron-dense layer of d. observed adjacent to the odontoblastic process.

primary d., d. which forms until the root is completed.

reparative d., syn tertiary d.

sclerotic d., d. characterized by calcification of the dentinal tubules as a result of injury or normal aging. syn transparent d.

secondary d., d. formed by normal pulp function after root end formation is complete.

tertiary d., morphologically irregular d. formed in response to an irritant. syn irregular d., irritation d., reparative d.

transparent d., syn sclerotic d.

vascular d., syn vasodentin.

den-ti-nal (den-'ti-nāl). Relating to dentin.

den-ti-nal-gia (den-ti-nal'jē-ā). Dental sensitivity or pain. [den-ti- + *G. algos*, pain]

dentine (den-'tēn) [TA]. The ivory forming the mass of the tooth. About 20% is organic matrix, mostly collagen, with some elastin and a small amount of mucopolysaccharide; the inorganic fraction (70%) is mainly hydroxyapatite, with some carbonate, magnesium, and fluoride. The d. is traversed by a large number of fine tubules running from the pulp cavity outward; within the tubules are processes from the odontoblasts. syn dentinium [TA], dentin, ebur dentis, substantia eburnea.

den-tin-o-ce-men-tal (den-'ti-nō-se-men-'tāl). Relating to the dentin and cementum of teeth. syn cementodentinal.

den-tin-o-gen-am-el (den-'ti-nō-ē-nam-'ēl). Relating to the dentin and enamel of teeth. syn amelodentinal.

den-tin-o-gen-e-sis (den-'ti-nō-jen-'ē-sis). The process of dentin formation in the development of teeth. [dentin + *G. genesis*, production]

d. imperfecta [MIM*125490 + MIM*125500], an autosomal dominant disorder of the teeth characterized clinically by translucent gray to yellow-brown teeth involving both primary and permanent dentition; the enamel fractures easily, leaving exposed dentin, which undergoes rapid attrition; radiographically, the pulp chambers and canals appear obliterated and the roots are short and blunted; sometimes occurs in association with osteogenesis imperfecta; autosomal dominant inheritance. syn hereditary opalescent dentin (1).

den-ti-noid (den-'ti-nōyd). 1. Resembling dentin. 2. syn dentinoma. [dentin + *G. eidos*, resembling]

den-ti-no-ma (den-'ti-nō-mā). A rare benign odontogenic tumor consisting microscopically of dysplastic dentin and strands of epithelium within a fibrous stroma. syn dentinoid (2). [dentin + *G. oma*, tumor]

den-ti-nūm (den-'ti-nūm) [TA]. syn dentine. [*L. dens*, tooth]

den-ti-p-a-rous (den-tip'ā-rūs). Tooth-bearing. [den-ti- + *L. pario*, to bear]

dent-ist. A legally qualified practitioner of dentistry.

den-tis-try (den-'tis-trē). The healing science and art concerned with the structure and function of the oral-facial complex, and with the prevention, diagnosis, and treatment of deformities, pa-

thoses, and traumatic injuries thereof. *syn* odontology, odontontology.

community d., public health d., with an academic base, emphasizing the professional obligation to foster the delivery of prevention, education, and care to populations.

esthetic d., a field of d. concerned especially with the appearance of the dentition as achieved through its arrangement, form, and color.



vital bleaching: of natural teeth for esthetic reasons; (top) before; (bottom) after

forensic d., (1) the relation and application of dental facts to legal problems, as in using the teeth for identifying the dead; (2) the law in its bearing on the practice of dentistry. *syn* dental jurisprudence, forensic odontology, legal d.

legal d., *syn* forensic d.

operative d., usually, the individual restoration of teeth by means of metallic or nonmetallic materials. *syn* restorative d.

pediatric d., *syn* pedodontics.

preventive d., a philosophy and method of dental practice that seeks to prevent the initiation, progression, and recurrence of dental disease.

prosthetic d., *syn* prosthodontics.

public health d., that specialty of d. concerned with the prevention and control of dental diseases and promotion of oral health through organized community efforts.

restorative d., *syn* operative d.

den-ti-tion (den-tish'ün). The natural teeth, as considered collectively. In the dental arch; may be deciduous, permanent, or mixed. [*L. dentitio*, teething]

artificial d., *syn* denture (1).

deciduous d., *syn* deciduous tooth.

delayed d., delayed eruption of the teeth.

first d., *syn* deciduous tooth.

mandibular d., *syn* mandibular dental arcade.

maxillary d., *syn* maxillary dental arcade.

natural d., *see* dentition.

primary d., *syn* deciduous tooth.

retarded d., d. in which growth phenomena such as calcification, elongation, and eruption occur later than in the average range of normal variation as a result of some systemic metabolic dysfunction (e.g., hypothyroidism).

secondary d., *syn* permanent tooth.

succedaneous d., *syn* permanent tooth.

△**dent-**. *see* dent-.

den-to-al-ve-o-lar (den'to-al-ve'ō-lār). Usually, denoting that portion of the alveolar bone immediately about the teeth; used also to denote the functional unity of teeth and alveolar bone.

den-tode (den'tōd). An exact reproduction of a tooth on a gnathographically mounted cast.

den-toid (den'tōyd). *syn* odontoid (1). *see* also dentiform. [*dent-* + *G. eidos*, resemblance]

den-to-le-gal (den'tō-lē'gāl). Relating to both dentistry and the law. *see* forensic dentistry.

den-to-li-va (den'tō-lī'vā). Rarely used term for oliv. [*L. denex*, tooth, + *oliva*, olive]

den-tu-lous (den'tū-lūs). Having natural teeth present in the mouth.

den-ture (den'tūr). 1. An artificial substitute for missing natural teeth and adjacent tissues. *syn* artificial dentition. 2. Sometimes used to denote the dentition of animals.

bar joint d., *syn* overlay d.

complete d., a dental prosthesis which is a substitute for the lost natural dentition and associated structures of the maxillae or mandible. *syn* full d.

design d., a planned visualization of the form and extent of a dental prosthesis, made after a study of all factors involved.

fixed partial d., a restoration of one or more missing teeth which cannot be readily removed by the patient or dentist; it is permanently attached to natural teeth or roots which furnish the primary support to the appliance. *syn* bridge (3), fixed bridge.

full d., *syn* complete d.

immediate d., a complete or partial d. constructed for insertion immediately following the removal of natural teeth. *syn* immediate insertion d.

immediate insertion d., *syn* immediate d.

implant d., a d. that receives its stability and retention from a substructure which is partially or wholly implanted under the soft tissues of the d. basal seat. *see* also implant denture substructure, implant denture superstructure, superioleul implant.

interim d., a dental prosthesis to be used for a short interval of time for reasons of esthetics, mastication, occlusal support, or convenience, or to condition the patient to accept an artificial substitute for missing natural teeth until more definite prosthetic dental treatment can be provided. *syn* provisional d., temporary d.

overlay d., a complete d., that is supported by both soft tissue and natural teeth that have been altered so as to permit the d. to fit over them. The altered teeth may have been fitted with short or long copings, locking devices, or connecting bars. *syn* bar joint d., hybrid prosthesis, overdenture, telescopic d.

partial d., a dental prosthesis which restores one or more, but less than all, of the natural teeth and/or associated parts and which is supported by the teeth and/or the mucosa; it may be removable or fixed. *syn* bridgework.

partial d., distal extension, a removable partial d. that is retained by natural teeth at one end of the base segments only, and in which a portion of the functional load is carried by the residual ridge.

provisional d., *syn* interim d.

removable partial d., a partial d. which supplies teeth and associated structures on a partially edentulous jaw, and which can be readily removed from the mouth. *syn* removable bridge.

telescopic d., *syn* overlay d.

temporary d., *syn* interim d.

transitional d., a partial d. which is to serve as a temporary prosthesis to which teeth will be added as more teeth are lost, and which will be replaced after postextraction tissue changes have occurred; a transitional d. may become an interim d. when all of the teeth have been removed from the dental arch.

treatment d., a dental prosthesis used for the purpose of treating or conditioning the tissues which are called upon to support and retain a denture base.

trial d., a setup of artificial teeth so fabricated that it may be placed in the patient's mouth to verify esthetics, for the making of records, or for any other operation deemed necessary before final completion of the d. *syn* wax model d.

occurring in a patient who has been immersed in and aspirated some water.

drowsi-ness (drow'zē-nes). A state of impaired awareness associated with a desire or inclination to sleep.

Dr.P.H. Abbreviation of Doctor of Public Health.

drug (drŭg). 1. Therapeutic agent; any substance, other than food, used in the prevention, diagnosis, alleviation, treatment, or cure of disease. For types or classifications of d.'s, see the specific name. SEE ALSO agent. 2. To administer or take a d., usually implying an overly large quantity or a narcotic. 3. General term for any substance, stimulating or depressing, that can be habituating or addictive, especially a narcotic. [M.E. *drogge*]

addictive d., any d. that creates a certain degree of euphoria and has a strong potential for addiction.

crude d., an unrefined preparation, usually of plant origin, that occurs either in the entire, nearly entire, broken, cut, or powdered state.

disease modifying antirheumatic d.'s, agents that apparently alter the course and progression of rheumatoid arthritis, as opposed to more rapidly acting substances that suppress inflammation and decrease pain, but do not prevent cartilage or bone erosion or progressive disability.

d. holiday, interval when a chronically medicated patient temporarily stops taking the medication; used to allow some recuperation of normal functions, to maintain sensitivity to the drug, and to reduce the likelihood of side-effects.

nonsteroidal anti-inflammatory d.'s (NSAID), a large number of d.'s exerting anti-inflammatory (and also usually analgesic and antipyretic) actions; examples include aspirin, acetaminophen, diclofenac, indomethacin, ketorolac, ibuprofen, and naproxen. A contrast is made with steroidal compounds (such as hydrocortisone or prednisone) exerting anti-inflammatory activity.

orphan d.'s, *syn* orphan products, under product.

psychedelic d., *syn* hallucinogens.

psychodysleptic d., *syn* hallucinogens.

psycholytic d., *syn* hallucinogens.

psychotomimetic d., *syn* hallucinogens.

psychotropic d., any d. that affects the mind.

recreational d., *syn* street d.

scheduled d., a d. assigned to any of the five schedules in the Controlled Substances Act (1970). SEE ALSO controlled substance.

street d., a controlled substance taken for non-medical purposes. Street d.'s comprise various amphetamines, anesthetics, barbiturates, opiates, and psychoactive drugs, and many are derived from natural sources (e.g., the plants *Papaver somniferum*, *Cannabis sativa*, *Amanita pantherina*, *Lophophora williamsii*). Slang names include acid (lysergic acid diethylamide), angel dust (phencyclidine), coke (cocaine), downers (barbiturates), grass (marijuana), hash (concentrated tetrahydrocannabinol), magic mushrooms (psilocybin), and speed (amphetamines). During the 1980s, a new class of "designer drugs" arose, mostly analogs of psychoactive substances intended to escape regulation under the Controlled Substances Act. Also, crack cocaine, a potent, smokable form of cocaine, emerged as a major public health problem. In the U.S. illicit use of drugs such as cocaine, marijuana, and heroin historically has occurred in cycles. *syn* recreational d.

drug-fast. Pertaining to microorganisms that resist or become tolerant to an antibacterial agent.

drug-gist (drŭg'ist). Old common term for pharmacist.

drug in-ter-ac-tions. The pharmacological result, either desirable or undesirable, of drugs interacting with other drugs, with endogenous physiologic chemical agents (e.g., MAOI with epinephrine), with components of the diet, and with chemicals used in diagnostic tests or the results of such tests.

drum, drum-head (drŭm, drŭm'hed). *syn* tympanic membrane.

Drummond, Sir David, English physician, 1852-1932. SEE artery of D.; D. sign.

drunk-en-ness (drŭnk'en-nes). Intoxication, usually alcoholic. SEE ALSO acute alcoholism.

sleep d., a half-waking condition in which the faculty of orientation is in abeyance, and under the influence of nightmarlike ideas

the person may become actively excited and violent. *syn* somnolentia (2).

drusen (drow'sen). Small bright structures seen in the retina and in the optic disk. [Ger. pl. of *Druse*, stony nodule, geode]

basal laminar d., small, round, translucent lesions measuring 25-75 μ m in diameter, which represent nodular thickening of the basement membrane of the retinal pigment epithelium, often with an overlying focal detachment of the retinal pigment epithelium from Bruch membrane. *syn* cuticular d.

basal linear d., deposits of long-spaced collagen located between the plasma membrane and basement membrane of the retinal pigment epithelium.

cuticular d., *syn* basal laminar d.

exudative d., accumulations of an amorphous and granular material, cytoplasmic processes, and bent fibers between the basement membrane of the retinal pigment epithelium and the inner collagenous zone of Bruch membrane; types of exudative d. include hard d. and soft d. *syn* typical d.

hard d., type of exudative or typical d. that appear ophthalmoscopically as discrete, yellow nodules characterized histopathologically by well-defined accumulations of hyaline material in the inner and outer collagenous zones of Bruch membrane.

intracapsular d., *syn* d. of the optic nerve head.

d. of the macula, excrescences of Bruch membrane that produce a window in the retinal pigment epithelium and are a feature of age-related macular retinal degeneration. *syn* macular d.

macular d., *syn* d. of the macula.

d. of the optic nerve head, basophilic, laminated, calcareous acellular masses that resemble crystals within the nerve head, anterior to the lamina cribrosa, that may simulate papilledema and/or cause visual field defects. *syn* intracapsular d.

soft d., type of exudative d. that appear ophthalmoscopically as placoid, yellow lesions characterized histopathologically by localized serous detachments of the retinal pigment epithelium from the Bruch membrane.

typical d., *syn* exudative d.

dry ice (dri'is). *syn* carbon dioxide snow.

ds Abbreviation for double-stranded.

DSA Abbreviation for digital subtraction angiography.

DSM Abbreviation for the *Diagnostic and Statistical Manual of Mental Disorders*.

DT Abbreviation for *delirium tremens*.

dT Abbreviation for deoxythymidine.

DTaP Abbreviation for diphtheria, tetanus, and acellular pertussis vaccine.

DT-di-aph-o-rase. *syn* NADPH dehydrogenase (quinone).

dTDP Abbreviation for thymidine 5'-diphosphate.

dTDP-sug-ars. Sugars or sugar derivatives bonded to dTDP.

DTH Abbreviation for delayed-type hypersensitivity.

dThd Abbreviation for thymidine.

DTIC Abbreviation for dacarbazine.

dTMP Abbreviation for deoxythymidylic acid; thymidine 5'-monophosphate.

DTP Abbreviation for distal tingling on percussion; diphtheria toxoid, tetanus toxoid, and pertussis vaccine; and Demeol, Thorazine, and Phenergan, sometimes used as a sedative.

DTPA Abbreviation for diethylenetriamine pentaacetic acid.

DTPA Abbreviation for diethylenetriamine pentaacetic acid.

DTR Abbreviation for deep tendon reflex.

dTTP Abbreviation for thymidine 5'-triphosphate.

du-al-ism (doo'al-izm). 1. In chemistry, a theory advanced by Berzelius that every compound, no matter how many elements enter into it, is composed of two parts, one electrically negative, the other positive; still applicable, with modification, to polar compounds, but inapplicable to nonpolar compounds. 2. In hematology, the concept that blood cells have two origins, i.e., lymphogenous and myelogenous. 3. The theory that the mind and body are two distinct systems, independent and different in nature. [L. *dualis*, relating to two, *fr. duo*, two]

hyper-sen-si-tiv-i-ty (hī'per-sen-si-tiv'i-tē). Abnormal sensitivity to a condition in which there is an exaggerated response by the body to the stimulus of a foreign agent. *see* allergy.

contact h. (1) *syn* contact dermatitis; (2) *syn* delayed reaction.

delayed h. (1) *syn* cell-mediated immunity; (2) *syn* delayed reaction; (3) a cell-mediated response that occurs in immune individuals peaking at 24-48 hours after challenge with the same antigen used in an initial challenge. The interaction of T-helper I lymphocytes with MHC class II positive antigen-presenting cells constitutes the response. This interaction induces the T helper I and macrophages at the site to secrete cytokines, which are the major players in the reaction. Called tuberculin-type h.

immediate h. an exaggerated immune response mediated by antibodies occurring within minutes after exposing a sensitized individual to the approximate antigen; also called Type I h. Clinical symptoms include atopic allergy and systemic anaphylaxis. The antigen induces IgE antibodies, which bind to mast cells and basophils. Subsequent exposure to antigen causes binding with the cytoplasmic IgE resulting in the release of mediators. *see* allergy.

tuberculin-type h. *syn* delayed reaction.

hyper-sen-si-ti-zation (hī'per-sen-si-ti-zā'shūn). The immunological process by which hypersensitivity is induced.

hyper-se-ro-to-ne-mia (hī'per-sēr-ō-tō-nē-tō'mē-ā). Unusually large amounts of serotonin in the circulating blood; probable cause of some of the symptoms and signs in the carcinoid syndrome.

hyper-ske-o-cy-to-sis (hī'per-skē-ō-si-tō'sis). *syn* hypernecrocytosis [G. *skaios*, left, + *kytos*, cell, + *-osis*, condition]

hyper-so-ma-to-tro-pism (hī'per-sō-mā-tō-tro'pizm). A state characterized by abnormally enhanced secretion of pituitary growth hormone (somatotropin).

hyper-som-nia (hī'per-sōn'ē-ā). A condition in which sleep periods are excessively long, but the person responds normally in the intervals; distinguished from somnolence. [hyper- + L. *somnus*, sleep]

hyper-son-ic (hī'per-sōn'ik). Pertaining to or characterized by supersonic speeds of Mach 5 or greater. While any speed above the speed of sound may be referred to as supersonic, speeds of Mach 5 or greater are specifically referred to as h. [hyper- + L. *sonus*, sound]

hyper-sphyx-i-a (hī'per-sfik'sē-ā). A condition of high blood pressure and increased circulatory activity. [hyper- + G. *sphysis*, pulse]

hyper-splen-ism (hī'per-splē'nizm). Any of a group of conditions in which the cellular components of the blood or platelets are removed at an abnormally high rate by the spleen, resulting in low circulating levels.

hyper-ste-a-to-sis (hī'per-stē-ā-tō'sis). Excessive sebaceous secretion.

hyper-sthe-nia (hī'per-stē'nē-ā). Excessive tension or strength. [hyper- + G. *sthenos*, strength]

hyper-sthen-ic (hī'per-sthen'ik). Pertaining to or marked by hypersthenia.

hyper-sthen-u-ria (hī'per-sthen-ū'rē-ā). Excretion of urine of unusually high specific gravity and concentration of solutes, resulting usually from low or deprivation of water. [hyper- + G. *sthenos*, strength, + *ouron*, urine]

hyper-sus-cep-ti-bil-i-ty (hī'per-sū-sep-ti-bil'i-tē). Increased susceptibility or response to an infective, chemical, or other agent.

hyper-sys-to-le (hī'per-sis'tō-le). Abnormal force or duration of the cardiac systole.

hyper-sys-to-le (hī'per-sis-tō'ik). Relating to or marked by hypersystole.

hyper-tel-o-ism (hī'per-tel'ō-izm). Abnormal distance between two paired organs. [hyper- + G. *tele*, far off, + *hōrizein*, to separate, fr. *horos*, a boundary]

Ridder type h. accompanying features are microtia and clefting of the lip, palate, and nose; mental deficiency, atresia of the auditory canals, ectopic kidneys, and thénar hypoplasia; autosomal recessive inheritance

canthal h. *syn* telecanthus.

ocular h. [MIM*145400], increased width between the eyes due to an arrest in development of the greater wings of the sphenoid, thus fixing the orbits in the widely separated fetal position; autosomal dominant inheritance. Ocular h. is a feature of many syndromes. A distinct form [MIM*145410] shows other congenital defects such as hypoplasia and esophageal anomalies. *see* also faciodigitogenital dysplasia, *syn* Greig syndrome, Opitz BBB syndrome, Opitz G syndrome.

hyper-ten-sin (hī'per-ten'sin). Former name for angiotensin.

hyper-ten-sin-o-gen (hī'per-ten'sin-ō-jen). Former name for angiotensinogen.

hy-per-ten-sion (hī'per-ten'shūn). High blood pressure; transitory or sustained elevation of systemic arterial blood pressure to a level likely to induce cardiovascular damage or other adverse consequences. H. has been arbitrarily defined as a systolic blood pressure above 140 mm Hg or a diastolic blood pressure above 90 mm Hg. Consequences of uncontrolled h. include retinal vascular damage (Keith-Wagener-Barker changes), cerebrovascular disease and stroke, left ventricular hypertrophy and failure, myocardial infarction, dissecting aneurysm, and renovascular disease. An underlying disorder (e.g., renal disease, Cushing syndrome, pheochromocytoma) is identified in fewer than 10% of all cases of h. The remainder, traditionally labeled "essential" h., probably arise from a variety of disturbances in normal pressure-regulating mechanisms (which involve baroreceptors, autonomic influences on the rate and force of cardiac contraction and vascular tone, renal retention of salt and water, formation of angiotensin II under the influence of renin and angiotensin-converting enzyme, and other factors known and unknown), and most are probably genetically conditioned. *syn* hyperplasia, hyperpiesia. [hyper- + L. *tensio*, tension]

Because of its wide prevalence and its impact on cardiovascular health, hypertension is a major cause of disease and death in industrialized societies. It is estimated that 50-70 million Americans, including about 50% of all people over age 60, have hypertension, but that only about one-third of these are aware of their condition and are under appropriate treatment. Hypertension causes 35,000 deaths annually in the U.S., and is a contributing factor in a further 180,000 deaths. It is associated with a 3-fold increase in the risk of heart attack and a 7- to 10-fold increase in the risk of stroke. The prevalence of hypertension and the incidence of nonfatal and fatal consequences are substantially higher in African-Americans. Although people with extremely high diastolic pressure may experience headache, dizziness, and even encephalopathy, uncomplicated hypertension seldom causes symptoms. Hence the diagnosis of hypertension is usually made by screening apparently healthy persons or those under treatment for another condition. Risk factors for hypertension include a family history of hypertension, African-American race, advancing age, the postmenopausal state, excessive dietary sodium, obesity, excessive use of alcohol, sedentary lifestyle, and chronic emotional stress. Treatment options include lifestyle changes (maintenance of healthful weight, at least 30 minutes of aerobic exercise several days a week; limitation of sodium intake to 2.4 g daily and of ethanol to 1 oz daily; consumption of adequate potassium, calcium, and magnesium; and avoidance of excessive emotional stress) and a broad range of drugs, including diuretics, beta-blockers, calcium channel blockers, angiotensin-converting enzyme inhibitors, angiotensin II receptor antagonists, α_1 -adrenergic antagonists, centrally acting α_1 -agonists, and others. In recent decades, early detection and aggressive treatment of hypertension have reduced associated morbidity and mortality. Current practice standards call for still more diligent management, including prevention through avoidance of known risk factors, particularly in persons with a family history of hypertension, and control of cofactors known to increase the risk of cardiovascular damage in persons with hypertension (smoking, hypercholesterolemia, diabetes mellitus).

Some studies suggest that the goal of treatment should be a diastolic blood pressure of 80 or lower.

accelerated h., h. advancing rapidly with increasing blood pressure and associated with acute and rapidly worsening signs and symptoms.

adrenal h., h. due to an adrenal medullary pheochromocytoma or to hyperactivity or functioning tumor of the adrenal cortex.

benign h., h. that runs a relatively long and symptomless course.

borderline h., by consensus, that blood pressure zone between highest acceptable "normal" blood pressure and hypertensive blood pressure. The Framingham Heart Study defines this as pressures between 140 and 160 mm Hg systolic and 90 and 95 mm Hg diastolic.

episodic h., h. manifest intermittently, triggered by anxiety or emotional factors. *syn* paroxysmal h.

essential h., h. without known cause. *syn* idiopathic h., primary h.

gestational h., h. during pregnancy in a previously normotensive woman or aggravation of h. during pregnancy in a hypertensive woman. *syn* pregnancy-induced h.

Goldblatt h., increased blood pressure following obstruction of blood flow to one kidney.

idiopathic h., *syn* essential h.

labile h., frequently changing levels of elevated blood pressure.

malignant h., severe h. that runs a rapid course, causing necrosis of arterial walls in kidney, retina, etc.; hemorrhages occur, and death most frequently is caused by uremia or rupture of a cerebral vessel.

pale h., h. with pallor of the skin, a severe form with pronounced constriction of peripheral vessels.

paroxysmal h., *syn* episodic h.

portal h., h. in the portal system as seen in cirrhosis of the liver and other conditions causing obstruction to the portal vein.

postpartum h., increased blood pressure immediately following the completion of labor.

pregnancy-induced h., *syn* gestational h.

primary h., *syn* essential h.

pulmonary h., h. in the pulmonary circuit; may be primary, or secondary to pulmonary or cardiac disease, e.g., fibrosis of the lung or mitral stenosis.

renal h., h. secondary to renal disease.

renovascular h., h. produced by renal arterial obstruction.

secondary h., arterial h. produced by a known cause, e.g., hyperthyroidism, kidney disease, etc., in contrast to primary h. that is of unknown cause.

systemic venous h., increased pressure in the veins ultimately leading to the right atrium nearly always due to disease of the right heart or pericardium but occasionally due to blockade of one or both venae cavae.

hyper-tense (hi-per-ten'siv). 1. Marked by an increased blood pressure. 2. Denoting a person suffering from high blood pressure.

hyper-tensor (hi-per-ten'ser, -sör). *syn* pressor.

hyper-tes-toid-ism (hi-per-tes'toyd-izm). Hypergonadism in the male, characterized by proliferation of Leydig cells with excessive production of testosterone.

hyper-the-co-sis (hi-per-thē-kō'sis). Diffuse hyperplasia of the theca cells of the graafian follicles.

stromal h., condition in which luteinized cells are present in ovarian stroma at a distance from follicular structures.

hyper-the-lia (hi-per-thē'lē-ā). *syn* polythelia. [hyper- + G. *thēlē*, nipple]

hyper-ther-mal-ge-sia (hi-per-ther-māl-jē-zē-ā). Extreme sensitivity to heat. [hyper- + G. *thermē*, heat, + *algēsis*, pain]

hyper-ther-mia (hi-per-ther-mē-ā). Therapeutically induced hyperpyrexia. [hyper- + G. *thermē*, heat]

malignant h., rapid onset of extremely high fever with muscle rigidity, precipitated by exogenous agents in genetically susceptible persons, especially by halothane or succinylcholine. Cf. *ful-tile cycle*. *syn* fulminant hyperpyrexia.

hyper-ther-mo-es-the-sia (hi-per-ther-mō-es-thē-zē-ā). Extreme sensitivity to heat. [hyper- + G. *thermē*, heat, + *aisthēsis*, feeling]

hyper-throm-bi-ne-mia (hi-per-throm-bi-nē-mē-ā). An abnormal increase of thrombin in the blood, frequently resulting in a tendency to intravascular coagulation.

hyper-thy-mia (hi-per-thi-mē-ā). State of overactivity, greater than average and less than the overactivity of the manic state of manic-depressive disorder. [hyper- + G. *thymos*, soul, thought]

hyper-thy-mic (hi-per-thi-mik). 1. Pertaining to hyperthyria. 2. Pertaining to hyperthyism.

hyper-thy-mism (hi-per-thi-mizm). Excessive activity of the thyroid gland; formerly postulated to be a causal factor in certain instances of unexpected and sudden death, such as status thymolymphaticus. *syn* hyperthyrimization.

hyper-thy-mi-za-tion (hi-per-thi-mi-zā-shūn). *syn* hyperthy-mism.

hyper-thy-rea (hi-per-thi-rē-ā). *syn* hyperthyroidism.

hyper-thy-roid-ism (hi-per-thi-royd-izm). An abnormality of the thyroid gland in which secretion of thyroid hormone is usually increased and is no longer under regulatory control of hypothalamic-pituitary centers; characterized by a hypermetabolic state, usually with weight loss, tremulousness, elevated plasma levels of thyroxine and/or triiodothyronine, and sometimes exophthalmos; may progress to severe weakness, wasting, hyperpyrexia, and other manifestations of thyroid storm; often associated with exophthalmos (Graves disease). See also thyrotoxicosis. *syn* hyperthyria, thyroidism (1), thyrotoxication.

hereditary h., a rare inherited (autosomal dominant) disorder with constitutive stimulation of the thyrocytes.

iodine-induced h., *syn* Jod-Basedow phenomenon.

masked h., h. occurring without the usual manifestations, especially lack of hyperactivity and eye findings, often with hypothyroidism, even somnolence. Manifestation can be limited to heart failure.

ophthalmic h., *syn* Graves disease.

primary h., h. due to a disorder originating within the thyroid gland, in contrast to one of pituitary origin; may be due to generalized overactivity of the gland, to a localized hyperactive nodule, or to circulating antibody, which stimulates the gland (long-acting thyroid stimulator).

secondary h., h. due to stimulation of the thyroid gland by an excess of thyrotrophin secreted by the pituitary gland.

hyper-thy-rox-i-ne-mia (hi-per-thi-rok-si-nē-mē-ā). An elevated thyroxine concentration in the blood.

hyper-to-nia (hi-per-tō-nē-ā). Extreme tension of the muscles or arteries. *syn* hypertonicity (1). [hyper- + G. *tonos*, tension]

polycythemia, a form of polycythemia without a prominent degree of splenomegaly, but with increased blood pressure.

sympathetic h., overfunction of the sympathetic nervous system, often experienced as anxiety.

hyper-ton-ic (hi-per-ton'ik). 1. Having a greater degree of tension. *syn* spastic (1). 2. Having a greater osmotic pressure than a reference solution, which is ordinarily assumed to be blood plasma or interstitial fluid; more specifically, refers to a fluid in which cells shrink. *syn* hypertonic.

hyper-to-ni-c-ity (hi-per-tō-ni-s'itē). 1. *syn* hypertonia. 2. An increased effective osmotic pressure of body fluids.

hyper-tri-chi-a-sis (hi-per-tri-ki-fā-sis). *syn* hypertrichosis.

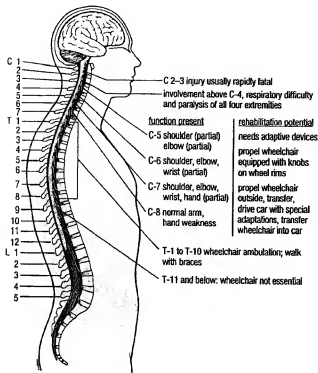
hyper-trich-o-phry-dia (hi-per-trik-ō-frī-dē-ā). Excessively thick eyebrows. [hyper- + G. *trich*, hair, + *ophrys*, eyebrow]

hyper-tri-cho-sis (hi-per-tri-kō'sis). Growth of hair in excess of the normal. See also hirsutism. *syn* hypertrichiasis. [hyper- + G. *trichōsis*, being hairy]

lanugine'sia, excessive growth of lanugo hair associated with internal malignancy.

nevroid h., congenital growth of hair abnormal for its site, texture, color, or length; often associated with congenital melanocytic nevi.

h. par-tia-tis, abnormally excessive hair growth in patches in unusual areas.



spinal cord injury: sequelae at various levels

cally in cases of shoulder dystocia or breech deliveries. SEE ALSO brachial birth palsy.

closed head i., a head i. in which continuity of the scalp and mucous membranes is maintained.

contrecoup i. of brain, an i. occurring beneath the skull opposite to the area of impact.

coup i. of brain, an i. occurring directly beneath the skull at the area of impact.

current of i., SEE *current of injury*.

degloving i., avulsion of the skin of a portion of the body (most commonly on the extremities) in which the part is skeletonized by removal of most or all of the skin and subcutaneous tissue.

egg-white i., SYN *egg-white syndrome*.

flexion-extension i., forceful application of a forward and backward movement of the unsupported head that may produce an injury to the cervical spine or the brain.

hyperextension-hyperflexion i., violence to the body causing the unsupported head to move rapidly backward and forward resulting in hyperextension and hyperflexion of the neck; does not imply any specific resultant trauma or pathology.

i. of intervertebral disk, SEE *traumatic cervical discopathy*.

open head i., a head i. in which there is a loss of continuity of scalp or mucous membranes; the term is sometimes used to indicate a communication between the exterior and the intracranial cavity. SEE ALSO *penetrating wound*.

pneumatic tire i., separation of the skin and subcutaneous tissue from the underlying fascia, classically occurring when an extremity is crushed and rolled over by the tire of a vehicle; however, it may be incurred through other mechanisms that produce shear forces; similar to a degloving i., except that the skin and subcutaneous tissue layers remain in continuity.

reperfusion i., myocardial impairment, usually with arrhythmia, following the opening of arterial blockage and considered to be due to oxygen-derived free radicals.

steering wheel i., trauma to the anterior chest wall caused by impact with the steering wheel during an automobile accident; can include fractured sternum and ribs, cardiac contusion, tear of the aorta or other great vessels, as well as lung injuries.

whiplash i., popular term for flexion-extension i.

in-lay (in'lay). 1. In dentistry, a prefabricated restoration sealed in the cavity with cement. 2. A graft of bone into a bone cavity. 3. A graft of skin into a wound cavity for epithelialization. 4. In orthopedics, an orthomechanical device inserted into a shoe; commonly called an "arch support."

epithelial i., SYN *inlay graft*.

gold i., a gold restoration fabricated by casting in a mold made from a wax pattern; the restoration is sealed in the prepared cavity with dental cement.

porcelain i., a fused porcelain restoration luted in a cavity prepared in a tooth.

in-let (TA). A passage leading into a cavity. SYN *aditus (TA)*. **laryngeal i.** [TA], the aperture between the pharynx and larynx, bounded by the superior edges of the epiglottis (anteriorly), the aryepiglottic folds (laterally), and the mucosa between the arytenoids (posteriorly). SYN *aditus laryngis (TA)*, *laryngeal aditus (TA)*, i. of larynx, *laryngeal aperture*.

i. of larynx, SYN *laryngeal i.*

pelvic i. [TA], the upper opening of the true pelvis, bounded anteriorly by the pubic symphysis and the pubic crest on either side, laterally by the iliopectineal lines, and posteriorly by the promontory of the sacrum. SYN *apertura pelvis superior (TA)*, *aditus pelvis*, first parallel pelvic plane, pelvic brim, pelvic plane of inlet, plane of inlet, superior pelvic aperture.

thoracic i., SYN *superior thoracic aperture*.

in-nate (in'nat, in-när). SYN *inborn*. [L. *in-nascor*, pp. -natus, to be born in, pp. as adj. *inborn*, *innate*]

in-ner-va-tion (in'er-vā'shūn). The supply of nerve fibers functionally connected with a part. [L. *in, in, + nervus*, nerve]

reciprocal i., contraction in a muscle is accompanied by a loss of tone or by relaxation in the antagonistic muscle. SYN *reciprocal inhibition (I)*.

in-nid-i-a-tion (i-nid-ē-ā'shūn). The growth and multiplication of abnormal cells in another location to which they have been transported by means of lymph or blood stream, or both. SEE ALSO *metastasis*. SYN *colonization (I)*, *indenzation*. [L. *in, in, + nidus*, nest]

in-no-cent (in'ō-sent). 1. Not apparently harmful. 2. Free from legal or moral wrong. [L. *innocens (-ent)*, fr. *in, neg., + noceo*, to injure]

in-noc-u-ous (i-nok'ū-ūs). Harmless. SYN *innocuous*. [L. *innocuus*]

in-nom-i-na-tal (i-nom'i-nā-tāl). Relating to the hip bone.

in-nom-i-nate (i-nom'i-nāt). Without name; a term formerly applied to the large vessels in the thorax (now called the brachiocephalic trunk and vein) and the hip bone. SYN *anonyma*. [L. *innominatus*, fr. *in- neg., + nomen (nomin-)*, name]

in-nox-i-ous (i-nok'shūs). SYN *innocuous*. [L. *in-noxius*, fr. *in, neg., + noceo*, to injure]

INO Acronym for *internuclear ophthalmoplegia*.

ino Symbol for *inosine*.

ino-, in-, Fiber, fibrous. SEE ALSO *fibro-*. [G. *is (in-)*, fiber]

in-oc-u-la-bil-i-ty (i-nok'ū-lā-bil'i-tē). The quality of being inoculable.

in-oc-u-la-ble (i-nok'ū-lā-bl). 1. Transmissible by inoculation. 2. Susceptible to a disease transmissible by inoculation.

in-oc-u-late (i-nok'ū-lāt). 1. To introduce the agent of a disease or other antigenic material into the subcutaneous tissue or a blood vessel, or through an abraded or absorbing surface for preventive, curative, or experimental purposes. 2. To implant microorganisms or infectious material into or upon culture media. 3. To communicate a disease by transferring its virus. [L. *inoculo*, pp. -atus, to ingraft]

in-oc-u-la-tion (i-nok'ū-lā'shūn). Introduction into the body of the causative organism of a disease. Also sometimes used, incorrectly, to mean immunization with any type of vaccine.

stress i., in clinical psychology, an approach intended to provide patients with cognitive and attitudinal skills that they can use to cope with stress.

mechanoreceptor (mē-kān'ī-kō-rē-sep'tor, tōr). *SYN* mechanoreceptor.

mechanics (mē-kān'iks). The science of the action of forces in promoting motion or equilibrium. [see *mechanical*]

body m., the study of the action of muscles in producing motion or posture of the body.

mech-an-ism (mek'ā-niz-m). 1. An arrangement or grouping of the parts of anything that has a definite action. 2. The means by which an effect is obtained. 3. The chain of events in a particular process. 4. The detailed description of a reaction pathway. [G. *mēchanē*, a contrivance]

association m., the cerebral m. whereby the memory of past sensations may be compared or associated with present ones.

countercurrent m., a system in the renal medulla that facilitates concentration of the urine as it passes through the renal tubules. *SEE* countercurrent exchanger, countercurrent multiplier.

defense m., (1) a psychological means of coping with conflict or anxiety, e.g., conversion, denial, dissociation, rationalization, repression, sublimation; (2) the psychic structure underlying a coping strategy; (3) immunologic m. vs. non-specific defense m.

double displacement m., *SYN* ping-pong m.

Douglas m., m. of spontaneous evolution in transverse lie; extreme lateral flexion of the vertebral column with birth of the lateral aspect of thorax before the buttocks.

Duncan m., passage of the placenta from the uterus with the rough side foremost.

gating m., (1) occurrence of the maximum refractory period among cardiac conducting cells approximately 2 mm proximal to the terminal Purkinje fibers in the ventricular muscle, beyond which the refractory period is shortened through a sequence of Purkinje cells, transitional cells, and muscular cells; gating m. may be a cause of ventricular aberration, bidirectional tachycardia, and concealed extrasystoles; (2) a m. by which painful impulses may be blocked from entering the spinal cord. *CF* gate-control theory.

immunologic m., the groups of cells (chiefly lymphocytes and cells of the reticuloendothelial system) that function in establishing active acquired immunity (induced sensitivity, allergy).

ordered m., a scheme for substrate binding and product release for multisubstrate enzymes; for a two-substrate two-product enzyme with an ordered m., one particular substrate has to first bind to the enzyme, followed by the other substrate; chemistry then occurs, and products are formed and are released from the enzyme in a distinct order. More complex ordered schemes exist for enzymes having more than two substrates. Some of the dehydrogenases have such a m. *SYN* ordered.

ordered-on-random off m., a scheme for substrate binding and product release for multisubstrate enzymes; for a two-substrate two-product enzyme with this m., the reactants have to bind to the enzyme in a distinct order; however, once the products are formed they may dissociate from the enzyme in either order. It has been suggested that pyruvate kinase has such a mechanism. The random-on-ordered off m. is simply the reverse of this m.

ping-pong m., a special multisubstrate reaction in which, for a two-substrate, two-product (i.e., bi-bi) system, an enzyme reacts with one substrate to form a product and a modified enzyme, the latter then reacting with a second substrate to form a second, final product, and regenerating the original enzyme. An example of such a m. is found in the aminotransferases. More complex ping-pong m.'s exist for enzymes having more than two substrates. *SYN* double displacement m.

pressorceptive m., the pressoreceptor system, especially of the carotid sinuses and aortic arch.

proprioceptive m., the m. of sense of position and movement, by which muscular movements can be adjusted to a great degree of accuracy and equilibrium maintained.

random m., a scheme for substrate binding and product release for a multisubstrate enzyme; for a two-substrate two-product enzyme with this m., either substrate can bind first and, after the reaction has taken place, either product can be the first to dissociate from the enzyme. Brain hexokinase has a random m. More

complex random m.'s exist for enzymes having more than two substrates.

re-entrant m., the probable basis of most arrhythmias, requiring at least three criteria in the heart: 1. a loop circuit, 2. unidirectional block, 3. slowed conduction. Impulses enter the loop circuit and divide in both directions (blocked in one direction only), negotiate the loop circuit to the area of block where the slowed conduction has allowed the impulse to arrive at a time when the tissue proximal to the unidirectional block has recovered and will permit its passage in the opposite direction.

Schultze m., expulsion of the placenta with the fetal surface foremost.

mech-a-no-car-di-og-ra-phy (mek'ā-nō-kar-dē-og'rā-fē). Use of graphic tracings reflecting the mechanical effects of the heartbeat, such as the carotid pulse tracing or apexcardiogram; phonocardiography is also usually considered a form of m.

mech-a-no-cyte (mek'ā-nō-sīt). An *in vitro* tissue culture fibroblast.

mech-a-no-pho-bia (mek'ā-nō-fō'bē-ī). Morbid fear of machinery. [G. *mēchanē*, machine, + *phobos*, fear]

mech-a-no-re-cep-tor (mek'ā-nō-rē-sep'tōr). A receptor which responds to mechanical pressure or distortion; e.g., receptors in the carotid sinuses, touch receptors in the skin. *SYN* mechanoreceptor.

mech-a-no-re-flex (mek'ā-nō-rē-fleks). A reflex triggered by stimulation of a mechanoreceptor.

mech-a-no-ther-a-py (mek'ā-nō-thēr'ā-pē). Treatment of disease by means of apparatus or mechanical appliances of any kind. [G. *mēchanē*, machine, + *therapēia*, treatment]

mèche (māsh). A strip of gauze or other material used as a tent or drain. [Fr. *wick*]

mech-lor-eth-a-mine hy-dro-chlo-ride (mek'lōr-eth'ā-mēn). It is cytotoxic for all cells, but with a special affinity for bone marrow, lymphatic tissues, and rapidly proliferating cells of certain neoplasms. Used for the palliative treatment of Hodgkin disease, lymphosarcoma, and certain chronic leukemias. *SYN* mustardine hydrochloride.

me-clism (mē'sizm). Abnormal elongation of the body or one or more of its parts. [G. *mēkos*, length, -ismos, condition]

Me-cis-to-cirrus (mē-sis-tō-sir'ūs). A monotypic genus of trichostrongylid nematodes (subfamily Mecistocirrinae), with the single species, *M. digitatus*; it is not grossly distinguished from *Haemonchus contortus* and has about the same effect on the host. *M.* is distributed chiefly in Asia in cattle, sheep, buffalo, bison, the stomach of pigs, and occasionally in humans. [G. *mēkistos*, very long, + *L. cirrus*, curl, the protruding male organ of a nematode]

Meckel, Johann F., the elder, German anatomist and obstetrician, 1714-1774. *SEE* *M. band*, *cavity*, *ganglion*, *ligament*, *space*.

Meckel, Johann F., the younger, German comparative anatomist and embryologist, 1781-1833. *SEE* *M. scan*, *syndrome*, *cartilage*, *diverticulum*, *plane*; *M.-Gruber syndrome*.

Mecke re-a-gent. See under *reagent*.

me-clas-tine (mē-klas'tēn). *SYN* clemastine.

me-cli-zine hy-dro-chlo-ride (mek'li-zēn). An H₁ antihistaminic useful in the prevention and relief of motion sickness and symptoms caused by vestibular disorders. *SYN* meclozine hydrochloride.

me-clo-fen-a-mate so-di-um (mek-lō-fen'ā-māt). A nonsteroidal anti-inflammatory agent with analgesic and antipyretic actions.

me-clo-fen-a-mic ac-id (mē-klo-fen-am'ik). An NSAID used for inflammatory conditions and dysmenorrhea; also antipyretic.

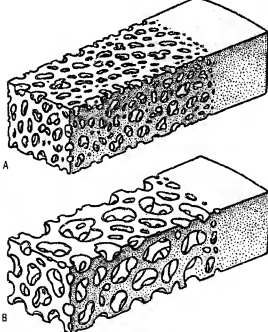
me-clo-fen-ox-ate (mek-lō-fen-ok'sāt). An analgesic.

me-clo-zine hy-dro-chlo-ride (mek'lō-zēn). *SYN* meclozine hydrochloride.

me-com-ter (mē-kom'tēr). An instrument, such as calipers with a scale attachment, for measurement of newborn infants. [G. *mēkos*, length, + *metron*, measure]

me-c-o-nate (mek'ō-nāt). A salt or ester of meconic acid. [G. *mēkōn*, poppy]

- osteophyte** (os'tē-ō-fit). A bony outgrowth or protuberance. [oste- + G. *phyton*, plant]
- osteoplake** (os'tē-ō-plak). Any osseous layer. [oste- + Fr. *plaque*, plate]
- osteoplast** (os'tē-ō-plast). SYN osteoblast. [oste- + G. *plastos*, formed]
- osteoplastic** (os'tē-ō-plas'tik). 1. SYN osteogenic. 2. Relating to osteoplasty.
- osteoplas-ty** (os'tē-ō-plas-tē). 1. Bone grafting, reparative or plastic surgery of bones. 2. In dentistry, resection of osseous structure to achieve acceptable gingival contour. [oste- + G. *plastos*, formed]
- osteopoi-ki-sis** (os'tē-ō-poy-ki-iō'sis). Mottled or spotted bones caused by widespread small foci of compact bone in the substantia spongiosa; autosomal dominant inheritance [MDM*166700]. SEE ALSO *osteopathia striata*, *dermatofibrosis lenticularis disseminata*. SYN *osteopathia condensans*. [oste- + G. *poikilos*, dappled, + *-osis*, condition]
- osteopo-nin**. A protein produced by osteoblasts of unknown function.
- osteopon-tin**. A secreted phosphoprotein, produced by many epithelial cell types, that is highly negatively charged and frequently associated with mineralization processes. It is found in plasma, urine, milk, and bile. Transformed cells express o. in elevated levels. SYN bone sialoprotein 1.



osteoporosis: (A) normal bone, (B) osteoporotic bone.

osteoporosis (os'tē-ō-pō-rō'sis). Reduction in the quantity of bone or atrophy of skeletal tissue, an age-related disorder characterized by decreased bone mass and increased susceptibility to fractures. [oste- + G. *poros*, pore, + *-osis*, condition]

Osteoporosis affects 20 million Americans, about 80% of them women, and costs U.S. society as much as \$3.8 billion annually. About 1.3 million fractures attributable to osteoporosis occur each year in people age 45 and older, and this condition is responsible for 50% of fractures occurring in women over age 50. Although all bones are affected, compression fractures of the vertebrae and traumatic fractures of the wrist and femoral neck are most common. Gradual asymptomatic vertebral compression may be detectable only on radiographic examination. Loss

of body height and development of kyphosis may be the only signs of vertebral collapse. After hip fracture, most elderly patients fail to recover normal activity, and mortality within 1 year approaches 20%. Fractures in the elderly often lead to loss of mobility and independence, social alienation, fear of further falls and fractures, and depression. Osteoporosis occurs when bone resorption outpaces bone formation. Mechanisms underlying osteoporosis are complex and probably diverse. Bone constantly undergoes cycles of resorption and formation (remodeling) to maintain the concentration of calcium and phosphate in the extracellular fluid. When serum calcium concentration drops, parathyroid hormone secretion increases, and this hormone stimulates bone resorption by osteoclasts to restore serum calcium levels to normal. Bone mass declines with age and is influenced by sex, race, menopause, and body weight-for-height. Dietary intake of calcium and vitamin D as well as intestinal and renal function affect calcium and phosphate homeostasis. The risk of osteoporosis is highest in postmenopausal women. Asian or white race, underweight, dietary calcium deficiency, sedentary lifestyle, alcohol use, and cigarette smoking appear to be independent risk factors. The decline of vitamin D₃ level with aging results in calcium malabsorption, which, in turn, stimulates bone resorption. Estrogen deficiency exacerbates this problem by increasing the sensitivity of bone to resorbing agents. Women who become amenorrheic because of rigorous athletic exercise and dietary restriction or eating disorders are at risk of osteoporosis. The formation and resorption of bone are also influenced by external physical factors such as body weight and exercise. Immobilization and prolonged bed rest produce rapid bone loss, while exercise involving weight-bearing has been shown both to reduce bone loss and to increase bone mass. Osteoporosis is common in young adults with cystic fibrosis, particularly those treated with long-term corticosteroid therapy. The diagnosis of primary osteoporosis is established by documentation of reduced bone density after exclusion of known causes of excessive bone loss. Radiographs are insensitive indicators of bone loss, since bone density must be decreased by at least 20–30% before the reduction can be appreciated. Standard diagnostic procedures are determination of bone mineral density at the distal radius and midshaft radius by single-photon absorptiometry, and at the hip and lumbar spine by dual-energy x-ray absorptiometry (DEXA). A quantitative ultrasound procedure recently approved by the FDA is comparable to bone density measurements by DEXA in predicting fractures due to osteoporosis. The goal of therapy in osteoporosis is prevention of fractures in susceptible patients. The appropriate timing and proper use of agents such as calcium, vitamin D, estrogen, bisphosphonates, calcitonin, and raloxifene and the role of exercise have generated major research efforts and considerable controversy. Intake of adequate amounts of calcium and vitamin D, and continuing moderate weight-bearing exercise, are basic preventive measures for persons of all ages. Administration of estrogen at and after menopause does not simply halt the loss of bone, but actually increases bone mass. Hormone replacement with estrogen remains the most effective prevention and treatment for postmenopausal osteoporosis. It is believed to be most appropriate to start estrogen at the earliest sign of the menopause, since bone loss probably begins before the cessation of menses. Estrogen therapy must be continued through later life to maintain optimal bone density. There is no convincing evidence that initiating estrogen therapy in elderly women will prevent osteoporosis. The benefits of estrogen therapy must be weighed against the increased risk of endometrial hyperplasia and endometrial carcinoma (which can be offset by concomitant administration of progestogen) and possibly of carcinoma of the breast. The selective estrogen receptor modulator raloxifene has been approved for prevention of osteoporosis. It does not cause endometrial hyperplasia but is less effective than estrogen in conserv-

ing bone mass. The hormone calcitonin, administered by injection or nasal spray, inhibits bone resorption and has other effects on mineral metabolism. Bisphosphonates such as alendronate and etidronate, which bind to bone crystals, rendering them resistant to enzymatic hydrolysis and inhibiting the action of osteoclasts, have been shown to increase bone mineral density. Strategies to prevent falls are important in elderly patients. **SEE ALSO** estrogen replacement therapy, raloxifene.

o. *circumscripta cranii*, localized cranial o., often seen in Paget disease.

juvenile o., idiopathic o. with onset before puberty, leading to pain or fractures, with spontaneous remission within a few years.

posttraumatic o., *syn* Sudeck atrophy.

osteoporotic (os'tē-ō-pō-rō'tik). Pertaining to, characterized by, or causing a porous condition of the bones.

osteoprotegerin (os'tē-ō-prō-tek'er-in). A secreted protein that inhibits osteoclast differentiation.

osteoradiologist (os'tē-ō-rā-dē-ōf-ō-jist). A physician who specializes in radiology of the bones and joints. [oste- + radiologist]

osteoradiology (os'tē-ō-rā-dē-ōl-ō-gy). The clinical subspecialty of diagnostic bone radiology.

osteoradionecrosis (os'tē-ō-rā-dē-ō-ne-kro'sis). Necrosis of bone produced by ionizing radiation; may be planned or unplanned. [oste- + radionecrosis]

osteorraphy (os'tē-ō-rā-fē). Wiring together the fragments of a broken bone. *syn* osteosuture. [oste- + G. *rhaphe*, suture]

osteosarcoma (os'tē-ō-sar-kō-mā). *syn* osteogenic sarcoma.

parosteal o., low-grade o. arising on the surface of bone without involvement of the underlying marrow, usually occurring as a heavily ossified mass of the distal femur in women in the third and fourth decades of life.

perosteal o., chondroblastic o. occurring on the surface of bones without involvement of the marrow; usually presents in adolescents and young adults as a lucent defect with bone spicules extending into soft tissue. Histologically, the tumor is intermediate to high grade, and the cartilage is lobulated.

osteosclerosis (os'tē-ō-skle-rō'sis). Abnormal hardening or burnation of bone. [oste- + G. *sklērosis*, hardness]

osteosclerotic (os'tē-ō-skle-rō'tik). Relating to, due to, or marked by hardening of bone substance.

osteosis (os'tē-ō'sis). 1. A morbid process in bone. *syn* osteitis (1). 2. *syn* osteogenesis. [oste- + G. *-osis*, condition]

parathyroid o., *syn* osteitis fibrosa cystica.

renal fibrocystic o., *syn* renal rickets.

osteospongiosa (os'tē-ō-spon-jē-ō-mā). General nonspecific term for a neoplasm in bone that results in thinning and fragmentation (thus, in softening) of the cortex. [oste- + G. *spongos*, sponge, + *-oma*, tumor]

osteosteoma (os'tē-ō-ste-ō-mā). A benign mass, usually a lipoma or sebaceous cyst, in which small foci of bony elements are present. [oste- + G. *stea*, suet, fat, + *-oma*, tumor]

osteosuture (os'tē-ō-soo'choor). *syn* osteorraphy.

osteosynthesis (os'tē-ō-sin'thē-sis). Internal fixation of a fracture by means of a mechanical device, such as a pin, screw, or plate.

osteothrombosis (os'tē-ō-throm-bō'sis). Thrombosis in one or more of the veins of a bone.

osteotome (os'tē-ō-tōm). An instrument for use in cutting bone. [oste- + G. *tomē*, incision]

osteotomy (os'tē-ō-tō-mē). Cutting a bone, usually by means of a saw or osteotome. [oste- + G. *tomē*, incision]

"C" sliding o., an extraoral o. in the shape of a "C" performed bilaterally in the mandibular rami for the correction of retrognathia and/or apertognathia.

Dwyer o., a procedure for clubfoot.

horizontal o., an o. performed intraorally for genioplasty; the

inferior aspect of the anterior mandible is advanced or retruded by movement of the free segment.

Le Fort o., an o. performed along the classic lines of fracture as described by Le Fort to correct a maxillary skeletal deformity; classified as Le Fort o. I, lower maxillary; II, pyramidal nasomaxillary; or III, high maxillary, depending upon the location.

sagittal split mandibular o., an intraoral surgical procedure for correction of retrognathism, apertognathia, and prognathism; the mandibular rami and posterior body are sectioned in the sagittal plane.

segmental alveolar o., an intraoral surgical procedure in which segments of alveolar bone containing teeth are sectioned between, and apically to, the teeth for the repositioning of the alveolus and teeth; it may be maxillary or mandibular, and may be combined with osteotomy.

sliding oblique o., an oral surgical procedure in which the mandibular ramus is cut vertically from the sigmoid notch to the angle to facilitate posterior repositioning of the mandible in correction of mandibular prognathism; it may be performed extraorally or intraorally, and is similar to vertical o.

vertical o., an oral surgical procedure similar to sliding oblique o.

osteotribe (os'tē-ō-trib). An instrument for crushing off bits of necrotic or carious bone. [oste- + G. *tribō*, to bruise, to grind down]

osteotrite (os'tē-ō-trit). An instrument with conical or olive-shaped tip having a cutting surface, resembling a dental burr, used for the removal of carious bone. [oste- + L. *tritus*, a grinding, a wearing off]

osteorophy (os'tē-ō-rō-fē). Nutrition of osseous tissue. [oste- + G. *rophē*, nourishment]

osteotympania (os'tē-ō-tim-pā-nik). *syn* otocranial. [oste- + G. *tympanon*, drum]

ostia (os'tē-ā). Plural of ostium. [L.]

ostial (os'tē-āl). Relating to any orifice, or ostium.

ostitic (os'tē-ik). *syn* osteitic.

ostitis (os'tē-tis). *syn* osteitis.

ostium, pl. *ostia* (os'tē-ūm, -ā) [TA]. A small opening, especially one of entrance into a hollow organ or canal. *see also* orifice, opening, os, mouth (2). [L. door, entrance, mouth]

abdominale uterine [TA], *syn* abdominal o. of uterine tube.

abdominal o. of uterine tube [TA], the fimbriated or ovarian extremity of an oviduct. *syn* o. abdominale tubae uterinae [TA].

anatomicum [TA], *syn* anatomical internal os of uterus.

aortic [TA], *syn* aortic orifice.

aortic o., *syn* aortic orifice.

apendicis vermiformis [TA], *syn* orifice of vermiform appendix.

arteriosum, *syn* left atrioventricular orifice.

atrioventriculare dextrum [TA], *syn* right atrioventricular orifice.

atrioventriculare sinistrum [TA], *syn* left atrioventricular orifice.

cardiacum [TA], *syn* cardiac orifice.

histologicum [TA], *syn* histological internal os of uterus.

ileale [TA], *syn* ileal orifice.

ileoceleale, *syn* ileal orifice.

internum, *syn* uterine o. of uterine tubes.

pharyngeum tubae auditivae [TA], *syn* pharyngeal opening of pharyngotympanic (auditory) tube.

pharyngeum tubae auditoriae, *official alternate term for pharyngeal opening of pharyngotympanic (auditory) tube.

primum, *syn* interatrial foramen primum.

pyloricum [TA], *syn* pyloric orifice.

secundum, *syn* interatrial foramen secundum.

sinus coronarii [TA], *syn* opening of coronary sinus.

trunci pulmonalis [TA], *syn* opening of pulmonary trunk.

tympanicum tubae auditivae [TA], *syn* tympanic opening of pharyngotympanic (auditory) tube.

1,2,3-propane tri-ol (prô-pân-trî-ol). *syn* glycerol.

pro-pau-i-did (prô-pân-'dîd). A short-acting eugenol used intra-venously for induction of general anesthesia.

pro-pa-no-ic acid (prô-pâ-nô-'îk). *syn* propionic acid.

pro-pa-nol (prô-pâ-nol). *syn* propyl alcohol.

pro-pa-no-yl (prô-pâ-nô-'îl). *syn* propionyl.

pro-pau-the-line bro-mide (prô-pân-thê-lên). The isopropyl analogue of methantheline bromide; an anticholinergic agent.

pro-par-a-caine hy-dro-chlo-ride (prô-par-â-kân). A surface anesthetic agent used in ophthalmology. *syn* proxymetacaine hydrochloride.

pro-pa-tyl ni-trate (prô-pâ-tîl). A coronary vasodilator.

pro-pene (prô-pên). *syn* propylene.

pro-pent-dy-o-pents (prô-pent-dî-ô-pentz). *see* bilirubinoids.

pro-pe-nyl (prô-pê-nîl). The radical, $-\text{CH}=\text{CH}-\text{CH}_2$.

pro-pep-sin (prô-pep-'sîn). *syn* pepsinogen.

pro-pep-tone (prô-pep-'tôn). A nondescript mixture of intermediate products in the conversion of native protein into peptone.

pro-per-din (prô-per-'dîn). A globulin in normal serum involved in resistance to infection that participates, in conjunction with other factors, in an alternative pathway to the activation of the terminal components of complement; a deficiency of p. results in the lack of stabilization of the alternative C3-convertase enzyme (an X-linked recessive disorder). *see also* pro-perdin system, component of complement, factor P. [pro- + L. *perdo*, to destroy]

pro-per-i-to-ne-al (prô-per-i-tô-nê-'âl). In front of the peritoneum.

pro-phase (prô-fâz). *syn* pro bacteriophage.

defective p., *see* defective bacteriophage.

pro-phase (prô-fâz). The first stage of mitosis or meiosis, consisting of linear contraction and increase in thickness of the chromosomes (each composed of two chromatids) accompanied by migration of the two daughter centrioles and their asters toward the poles of the cell. In meiosis, p. is complex and can be subdivided into stages: prolepton, leptotene, zygotene, pachytene, diplotene, and diakinesis. [G. *prophasis*, from *prophainô*, to fore-shadow]

pro-phen-py-rid-a-mine ma-le-ate (prô-fen-pî-rid-â-mên). *syn* phenanthrene maleate.

pro-phy-lac-tic (prô-fî-lak-'tîk). 1. Preventing disease; relating to prophylaxis. *syn* preventive. 2. An agent that acts to prevent a disease. [G. *prophylaktikos*; *see* prophylaxis]

pro-phy-lax-is, pl. pro-phy-lax-es (prô-fî-lak-'sîs, -sêz). Prevention of disease or of a process that can lead to disease. [Mod. L. fr. G. *prophylaxô*, to guard before, take precaution]

active p., use of an antigenic (immunogenic) agent to actively stimulate the immunologic mechanism.

chemical p., the administration of chemicals or drugs to members of a community to reduce the number of carriers of a disease and to prevent others contracting the disease.

dental p., a series of procedures whereafter calculus, stain, and other accretions are removed from the clinical crowns of the teeth, and the enamel surfaces are polished.

passive p., use of an antiserum from another person or animal to provide temporary protection against a specific infectious or toxic agent.

pro-pi-cil-lin (prô-pî-sî-'lîn). A semisynthetic acid-stable penicillin that may be more effective than penicillin G. *syn* α -phenoxypropylpenicillin potassium.

pro-pi-o-cor-tin (prô-pê-ô-kôr-'tên). An endogenous polypeptide that might be a precursor to the enkephalins. *Cf.* proenkephalin.

pro-pi-o-lac-tone (prô-pê-ô-lak-'tôn). Used to sterilize plasma, vaccines, and tissue grafts.

pro-pi-o-nate (prô-pê-ô-nâ-tî). A salt or ester of propionic acid.

Pro-pi-oni-bac-te-ri-um (prô-pê-on-i-bak-tê-rî-'ûm). A genus of nonmotile, non-spore-forming, anaerobic to aerotolerant bacteria (family Propionibacteriaceae) containing Gram-positive rods that are usually pleomorphic, diphtheroid, or club shaped, with one end rounded, the other tapered or pointed. Some cells may be coccoid, elongate, bifid, or even branched. The cells usually occur singly, in pairs, in V and Y configurations, short chains, or

clumps in "Chinese character" arrangement. The metabolism of these organisms is fermentative, and the products of fermentation include combinations of propionic and acetic acids. These organisms occur in dairy products, on human skin, and in the intestinal tracts of humans and other animals. They may be pathogenic. The type species is *P. freudenreichii*.

P. ac'nes, a species of bacteria commonly found in acne pustules, although it occurs in other types of lesions in humans and even as a saprophyte in the intestine, skin, hair follicles, and in sewage. **P. freudenreich'ii**, a bacterial species found in raw milk, Swiss cheese, and other dairy products; it is the type species of the genus *P.*

P. jensen'ii, a bacterial species found in dairy products, silage, and occasionally in infections.

P. propi'on'icus, *syn* *Arachnia propionica*.

pro-pi-on-ic acid (prô-pê-on-'îk). Methylacetic acid; ethylformic acid; found in sweat; elevated in cases of ketotic hyperglycinemia and in cases of biotin deficiency. *syn* propanoic acid.

pro-pi-on-ic ac-i-de-mia (prô-pê-on-'îk-as-i-dê-mê-â). *syn* ketotic hyperglycinemia.

pro-pi-o-nyl (prô-pê-ô-nîl). $\text{CH}_3\text{CH}_2\text{CO}-$; the acyl radical of propionic acid. *syn* propanoyl.

pro-pi-o-nyl-CoA (prô-pê-ô-nîl-kô-â). The coenzyme A thioester derivative of propionic acid; an intermediate in the degradation of L-valine, L-isoleucine, L-threonine, L-methionine, and odd-chain fatty acids; a precursor for the synthesis of odd-chain fatty acids; it accumulates in individuals with a deficiency of p-CoA carboxylase.

p-CoA carboxylase, an enzyme that catalyzes the reaction of p-CoA with CO_2 and ATP to produce ADP, orthophosphate, and dimethylmalonyl-CoA; a biotin-dependent enzyme; an inherited deficiency of this enzyme will lead to propionic acidemia and developmental retardation.

pro-pi-o-nyl-gly-cine (prô-pê-ô-nîl-gî-'sên). A minor metabolite that accumulates in individuals with propionic acidemia.

pro-pit-o-caine hy-dro-chlo-ride (prô-pît-ô-kân). *syn* pilocaine hydrochloride.

pro-pla-sia (prô-plâ-'zê-â). That state of cell or tissue in which activity is increased above that of euplasia, i.e., characterized by stimulation, repair, or regeneration. [pro- + G. *plassô*, to form]

pro-plas-ma-cyte (prô-plaz-mâ-'sî-tî). A cell in the process of differentiating from a plasmablast to a mature plasma cell.

pro-plex-us (prô-plek-'sûs). The choroid plexus in the lateral ventricle of the brain.

pro-po-fo-l (prô-pô-'fôl). An oil-in-water emulsion of 1,6-diisopropylphenol, a hypnotic with rapid onset and short duration of action; used intravenously for induction and maintenance of general anesthesia. *syn* 2,6-diisopropyl phenol.

pro-pos-i-tus, pl. pro-po-si-ti (prô-pôz-i-tûs, -tî). 1. Probandum, usually referring to the first index case to be ascertained. *Cf.* consultand. 2. A premise; an argument. [L. fr. *propono*, pp. -positus, to lay out, propound]

pro-pox-y-phene hy-dro-chlo-ride (prô-pok-'sî-fên). A nonantipyretic, orally effective weak narcotic analgesic structurally related to methadone and used for the relief of mild to moderate pain; it is less effective than codeine. *syn* dextropropoxyphene hydrochloride.

pro-pox-y-phene nap-syl-ate (prô-pok-'sî-fên). A weak narcotic analgesic. *syn* dextropropoxyphene napsylate.

pro-pran-o-lol hy-dro-chlo-ride (prô-prân-'ô-lôl). An adrenergic β -receptor blocking agent; used in the treatment of angina pectoris, hypertension, cardiac arrhythmias, and other conditions.

pro-pri-e-tary name (prô-pri-'î-târ-ê). The protected brand name or trademark, registered with the U.S. Patent Office, under which a manufacturer markets its product. It is written with a capital initial letter and is often further distinguished by a superscript R in a circle (®). *Cf.* generic name, nonproprietary name. [L. *proprietas*, ownership]

pro-pri-o-cep-tion (prô-prê-ô-sep-'shûn). A sense or perception, usually at a subconscious level, of the movements and position of the body and especially its limbs, independent of vision; this

psy-cho-phys-i-o-log-ic (sī'kō-fiz-ē-ō-lō'jīk). 1. Pertaining to psychophysiology. 2. Denoting a so-called psychosomatic illness. 3. Denoting a somatic disorder with significant emotional or psychologic etiology.

psy-cho-phys-i-o-l-o-g-y (sī'kō-fiz-ē-ō-lō'j-ē). The science of the relation between psychologic and physiologic processes; e.g., elements of autonomic nervous system activity activated by emotion.

psy-cho-pro-phyl-lax-is (sī'kō-prō-fī-lak'sis). Psychotherapy directed toward the prevention of emotional disorders and the maintenance of mental health. [psycho- + prophylaxis]

psy-cho-re-lax-a-tion (sī'kō-rē-lak-sā'shūn). A method of treating anxiety and tension by practicing general bodily relaxation, as in systematic desensitization.

psy-cho-r-mic (sī-kōr'mīk). SYN psychostimulant. [psycho- + G. *hormāō*, to set in motion]

psy-cho-sen-so-ry, **psy-cho-sen-so-ri-al** (sī'kō-sen'sōr-ē, -sen-sōr'ē-āl). 1. Denoting the mental perception and interpretation of sensory stimuli. 2. Denoting a hallucination which by effort the mind is able to distinguish from reality.

psy-cho-sex-u-al (sī-kō-sek'shoo-āl). Pertaining to the relationships among the emotional, mental physiologic, and behavioral components of sex or sexual development.

psy-cho-sine (sī'kō-sēn). Galactosylsphingosine, a constituent of

cerebrosides, formed from UDPgalactose and sphingosine by UDPgalactose-sphingosine β -D-galactosyltransferase.

psy-cho-sis, pl. **psy-cho-ses** (sī-kō'sis, -sēz). 1. A mental and behavioral disorder causing gross distortion or disorganization of a person's mental capacity, affective response, and capacity to recognize reality, communicate, and relate to others to the degree of interfering with the person's capacity to cope with the ordinary demands of everyday life. The psychoses are divided into two major classifications according to their origins: 1) those associated with organic brain syndromes (e.g., Korsakoff syndrome); 2) those less clearly organic and having some functional component(s) (e.g., the schizophrenias, bipolar disorder). 2. Generic term for any of the so-called insanities, the most common forms being the schizophrenias. 3. A severe emotional and behavioral disorder. SYN psychotic disorder. [G. *anaimating*]

affective p., with predominant affective features. SYN manic p. **alcoholic psychoses**, mental disorders that result from alcoholism and that involve organic brain damage, as in delirium tremens and Korsakoff syndrome.

bipolar p., a mental disorder characterized by one or more episodes of mania (manic depression) which is usually accompanied by one or more episodes of depression (major depressive episode). SEE endogenous depression, manic-depressive.

Cheyne-Stokes p., a mental state characterized by anxiety and restlessness, accompanying Cheyne-Stokes respiration.

psychopharmacology

antipsychotic agents

traditional (typical) low-potency agents

chlorpromazine, mesoridazine, thioridazine

exert their therapeutic effect, putatively, by blocking D₂ (dopamine) receptors, but also produce an impact on a number of other receptors, causing anticholinergic effects, sedation, and orthostatic hypotension

high-potency agents

fluphenazine, haloperidol, loxapine,* molidone, perphenazine, pimozide, thiothixene, trifluoperazine

exert their therapeutic effect, putatively, by blocking D₂ (dopamine) receptors; are more likely than low-potency agents to cause neurologic side effects (e.g., extrapyramidal symptoms, acute dystonia, akathisia, tardive dyskinesia)

atypical agents

clozapine, risperidone, olanzapine, quetiapine

exert their therapeutic effect, putatively, by their generally greater blocking of 5-HT₂ (serotonin) receptors relative to D₂ (dopamine) receptors; are less likely than typical agents to cause neurologic side effects

antidepressant agents

heterocyclic agents

amitriptyline, amoxapine, clomipramine, desipramine, doxepin, imipramine, maprotiline, nortriptyline, protriptyline, trimipramine

exert their therapeutic effect, putatively, by blocking the reuptake of serotonin and/or norepinephrine, at presynaptic neurons, increasing the availability of these neurotransmitters; recent evidence suggests significant effects on postsynaptic neurons may also be responsible for the therapeutic effect

selective serotonin reuptake inhibitors

citalopram, fluoxetine, fluvoxamine, paroxetine, sertraline

exert their therapeutic effect, putatively, by selectively (relative to other neurotransmitters) blocking the reuptake of serotonin

monoamine oxidase inhibitors

isocarboxazid, phenelzine, tranylcypromine

exert their therapeutic effect, putatively, by irreversibly limiting the activity of monoamine oxidase, leading to an increase in the availability of norepinephrine and serotonin at the synapse

currently novel agents

bupropion, mirtazapine, nefazodone, trazodone, venlafaxine

exert their therapeutic effect by a variety of actions, putatively increasing the availability of serotonin, norepinephrine, and/or dopamine at the synapse

antimanic agents

lithium, carbamazepine, gabapentin,** lamotrigine,** valproic acid

exert their therapeutic effect of mood stabilization by actions that are not yet fully understood

anxiolytic agents

benzodiazepines

alprazolam, chlorazepate, chlordiazepoxide, clonazepam, diazepam, lorazepam, oxazepam

exert their therapeutic effect by their agonist activity at the γ -aminobutyric acid-receptor site, and in high enough dosage, this will result in excessive sedation or sleep; all have potential for habituation. Other benzodiazepines, because of their pharmacologic properties, are primarily useful as hypnotics

* also has ability to block 5-HT₂ (serotonin receptors)

** relatively recently available anticonvulsants that have off-label efficacy in mood stabilization

to initiate the Ferguson reflex or prostaglandin release from the decidua and hasten labor.

Strisower. see Schellong-Strisower phenomenon.

stro-bi-la, pl. **stro-bi-lae** (strō'bi-lā, -lē). A chain of segments, less the scolex and unsegmented neck portion, of a tapeworm; in the monozoic tapeworms (subclass Cestodaria and some members of the subclass Cestoda), it may consist of a single proglottid. [G. *strobila*, a twist of lint]

stro-bi-lo-cer-cus (strō'bi-lō-ser'kūs). A taenioid tapeworm larva of the cysticercus type, but with a conspicuous segmented neck, small terminal bladder, and everted scolex; the larval form of *Taenia taeniaeformis*, called *Cysticercus fasciolaris*. [G. *strobile*, a twist of lint, + *kerkos*, tail]

stro-bi-loid (strō'bi-lōyd). Resembling a chain of segments of a tapeworm. [G. *strobilē*, strobile, + *eidos*, resemblance]

stro-bo-scope (strō'bō-skōp). An electronic instrument that produces intermittent light flashes of controlled frequency; used to influence electrical activity of the cerebral cortex.

stro-bo-scop-ic (strō'bō-skōp'ik). Pertaining to the illusion of motion, retarded or accelerated, produced by visual images observed intermittently in rapid succession. [G. *strobos*, a twisting around, fr. *strephō*, to twist, + *skopēō*, to view]

stro-bo-sc-opy (strō'bō-skō-pē). Endoscopy performed with an intermittent light at a frequency that approximates the frequency of movement of the object visualized so that it appears to be motionless; useful in analyzing vocal cord structure and motion.

stroke (strōk). 1. Any acute clinical event, related to impairment of cerebral circulation, that lasts more than 24 hours. **syn** apoplexy, brain attack. 2. A harmful discharge of lightning, particularly one that affects a human being. 3. A pulsation. 4. To pass the hand or any instrument gently over a surface. **SEE** also stroking. 5. A gliding movement over a surface. [A.S. *strōc*]

Acute neurologic deficits resulting from circulatory impairment that resolve within 24 hours are called transient ischemic attacks (TIAs); most TIAs last only 15–20 minutes. In contrast, a stroke involves irreversible brain damage, the type and severity of symptoms depending on the location and extent of brain tissue whose circulation has been compromised. The outcome of a stroke varies from minimal impairment to rapid onset of coma followed quickly by death. Stroke ranks third as a cause of death in adults in the U.S., after ischemic heart disease and cancer. About 700,000 people a year experience strokes in this country, and at any given time the population includes about 3 million stroke survivors. The incidence of stroke has gradually declined during the past generation. Risk factors for stroke include hypertension, valvular heart disease, atrial fibrillation, hyperlipidemia, diabetes mellitus, cigarette smoking, and a family history of stroke. In addition, recent studies have shown that elevation of plasma homocysteine, low circulating levels of folic acid and pyridoxine (vitamin B₆), periodontal disease, and chronic bronchitis are all independent risk factors.

Ischemic stroke, which accounts for about 85% of all strokes, is generally caused by a thrombosis or embolism of a major cerebral artery. Less common causes of ischemic stroke include nonatheromatous vascular disease and coagulation disorders. Severe, acute ischemia in nerve tissue triggers cellular changes (calcium influx, protease activation) that can swiftly cause irreversible damage (infarction). Around the infarct zone lies a so-called penumbra of ischemic, electrically silent tissue that may be salvageable by prompt reperfusion. The mortality of ischemic stroke is 15–30% within the first 30 days. Hemorrhagic stroke, which makes up the other 15%, has a graver prognosis, with a 30-day mortality rate of 40–80%. The diagnostic evaluation of the patient with stroke includes history, physical examination, blood count, blood chemistries, coagulation profile, electrocardiogram, and imaging studies. While cranial CT is the procedure of choice to identify subarachnoid hemorrhage, MRI is a more sensitive indicator of parenchymal hemorrhage as well as of ischemia and infarction. About 20% of persons initially thought to have had a stroke prove to have some other disorder, and as many as 20% of strokes

are missed on initial evaluation by emergency department physicians. Early and aggressive treatment is crucial in limiting damage to brain tissue and achieving an optimal outcome. In ischemic stroke, intravenous administration of tissue plasminogen activator (TPA) within the first 3 hours, with the purpose of dissolving an obstructing thrombus, has been shown to improve overall outcome at 90 days. Limiting factors in the use of thrombolytic therapy are the need to rule out hemorrhagic stroke (sometimes difficult with available imaging methods) and the fact that the therapy itself may induce hemorrhage. Intravenous thrombolytic agents other than TPA are not only less effective but also more likely to cause hemorrhage. In limited studies, intraarterial injection of prokinase up to 6 hours after stroke onset has favorably influenced outcome. During the acute phase of a stroke, respiratory and circulatory support and attention to fluid and electrolyte balance and nutrition are vitally important. Hypothermia and intravenous administration of heparin and magnesium also improve outcome in selected cases. Long-term consequences may depend on the aggressiveness and persistence of physical therapy and rehabilitation.

Effective measures for the prevention of stroke include aggressive management of hypertension, hyperlipidemia, and diabetes mellitus, cessation of smoking, and chemoprophylaxis in persons at high risk. Administration of aspirin (acetylsalicylic acid) prophylactically inhibits platelet aggregation by suppressing thromboxane A₂. A meta-analysis of randomized controlled trials involving a total of more than 50,000 people indicated that low-dosage aspirin (80–325 mg/day) reduces the risk of ischemic stroke by 39 events per 10,000 persons but increases the risk of hemorrhagic stroke by 12 events per 10,000 persons. Other studies suggest that aspirin at higher dosage (1.3 g/day in divided doses) protects men but not women from ischemic stroke because in women aspirin also suppresses prostacyclin, a natural inhibitor of platelet aggregation. Prophylaxis with other antiplatelet agents (clopidogrel, ticlopidine) is equally effective in men and women and at least as protective as aspirin. In nonvalvular atrial fibrillation, warfarin prophylaxis reduces stroke risk by two-thirds. Most studies show that, in persons with carotid artery stenosis of at least 60%, carotid endarterectomy reduces the risk of stroke. The National Stroke Association has recommended adoption of the term *brain attack* for stroke, by analogy with the familiar *heart attack*, to emphasize to the public both the location of the lesion and the urgency of the need for assessment and treatment. **SEE** Also tissue plasminogen activator.

effective s., the rapid forward movement of cilia.

heart s., impact of the apex of the heart against the wall of the chest.

heat s., **SEE** heatstroke.

recovery s., the slow return movement of cilia.

spinal s., abrupt onset of focal spinal cord dysfunction caused by a disturbance in its blood supply.

SUN s., **SEE** sunstroke.

stroking (strōk'ing). The nonverbal fondling and nurturance accorded infants or the nonverbal and verbal forms of acceptance, reassurance, and positive reinforcement accorded to children and adults either by an individual to himself or herself or to another person in order to satisfy a basic biopsychological need of all developing humans; various psychopathological conditions are believed to result when such s. is absent or faulty.

stro-ma, pl. **stro-ma-ta** (strō'mā, strō'mā-tā). 1. The framework, usually of connective tissue, of an organ, gland, or other structure, as distinguished from the parenchyma or specific substance of the part. 2. Aqueous phase of chloroplasts; i.e., chloroplast matrix. 3. Archaic term for mitochondrial matrix. [G. *strōma*, bed]

s. glan'dulae thyro'idæ, **syn s.** of thyroid gland.

s. ir'idis, **syn s.** of iris.

s. of iris, the delicate vascular connective tissue that lies between the anterior surface of the iris and the pars iridica retinae. **syn s.** iridis.

lymphatic s., the network of reticular fibers and associated reticular cells of lymphatic tissue.

nerve s., the connective tissue supporting structures of peripheral

- s. *tympan'icus* [TA], SYN *tympanic* s.
 s. of umbilical vein, the s. on the fetal liver occupied by the umbilical vein. SYN s. *venae umbilicales*.
 s. for *vena cava* [TA], a groove on the posterior surface of the liver between the caudate lobe and the right lobe which gives passage to the inferior vena cava. SYN s. *venae cavae* [TA], *fossa venae cavae*, groove for inferior vena cava.
 s. *ve'nae ca'vae* [TA], SYN s. for *vena cava*.
 s. *ve'nae ca'vae cranial'is*, SYN *groove* for superior vena cava.
 s. *ve'nae subclav'iae* [TA], SYN *groove* for subclavian vein.
 s. *ve'nae umbilical'is*, SYN s. of umbilical vein.
 sul'ci veno'si [TA], SYN *venous grooves*, under *groove*.
 s. *ventra'lis*, SYN *anterior median fissure* of spinal cord.
 ventrolateral s., ²official alternate term for anterolateral s.
 s. for vertebral artery, SYN *groove* for vertebral artery.
 s. *vertica'lis*, SYN *precentral* s.
 vomeral s., SYN *vomerine groove*.
 s. *vomera'lis*, SYN *vomerine groove*, *vomerine groove*.
 s. *vo'meris* [TA], SYN *vomerine groove*.
 s. *vomerovagina'lis* [TA], SYN *vomerovaginal groove*.

Δsulf-, sulfo-. 1. Prefix denoting that the compound to the name of which it is attached contains a sulfur atom. This spelling (rather than sulph-, sulpho-) is preferred by the American Chemical Society and has been adopted by the USP and NF, but not by the BP. 2. Prefix form of sulfonic acid or sulfonate.

sul'fa (sū'fā). Denoting the sulfa drugs, or sulfonamides.

sul'fa-benz-am-ide (sū'fā-ben'zā-mīd). An antimicrobial of the sulfonamide group. SYN *N*-sulfonylbenzamide.

sul'fa-cet-a-mide (sū'fā-set'ā-mīd). An antibacterial agent of the sulfonamide group, primarily used topically; s. sodium has the same uses as s. and is also used locally for eye infections and for prevention of gonorrheal ophthalmia in newborn infants. SYN *N*-sulfonylacetamide.

sul'fa-cid (sū'fā-sīd). SYN *thioacid*.

sul'fa-cy-tine (sū'fā-sī'tēn). A sulfonamide used as an oral antibiotic in the treatment of urinary tract infections.

sul'fa-di-a-zine (sū'fā-dī'ā-zēn). One of a group of diazine derivatives of sulfanilamide, the pyrimidine analog of sulfapyridine and sulfathiazole; one of the components of the triple sulfonamide mixture. It is an inhibitor of bacterial folic acid synthesis, which has been highly effective against pneumococcal, staphylococcal, and streptococcal infections, against infections with *Escherichia coli* and *Klebsiella pneumoniae*, and in acute gonococcal arthritis; s. sodium has the same uses.

sul'fa-di-me-thox-ine (sū'fā-dī-mē-thōk'sēn). A long-acting sulfonamide that is rapidly absorbed after oral administration and is slowly excreted by the kidney; it accumulates in the tissue and requires lower doses to attain effective tissue concentrations than do the other sulfonamides.

sul'fa-dim-i-dine (sū'fā-dīm'ī-dēn). SYN *sulfamethazine*.

sul'fa-dox-ine (sū'fā-dōk'sēn). A long-acting sulfonamide, used with quinine and pyrimethamine to reduce the relapse rate of malaria. SYN *sulfomethoxine*.

sul'fa-eth-i-dole (sū'fā-eth'ī-dōl). A sulfonamide used in the treatment of systemic and urinary tract infections.

sul'fa-fur-a-zole (sū'fā-fūr'ā-zōl). SYN *sulfisoxazole*.

sul'fa-gua-ni-dine (sū'fā-gwān'ī-dēn). The guanidine derivative of sulfanilamide. It is poorly absorbed from the gastrointestinal tract; useful for bacterial infections of the lower intestinal tract and for preoperative sterilization of the intestinal tract; a goitrogen. SYN *sulfaguaine*.

sul'fa-guine (sū'fā-gūn). SYN *sulfaguaine*.

sul'fa-lene (sū'fā-lēn). A very long-acting sulfonamide that enhances, as do other sulfonamides and sulfones, the effectiveness of antimalarial agents such as pyrimethamine, chloroquine, or cycloguanil.

sul'fa-mer-a-zine (sū'fā-mer'ā-zēn). One of the components of the triple sulfonamide mixtures.

sul'fa-me-ter (sū'fā-mē-ter). A slowly excreted sulfonamide once used in the treatment of acute and chronic urinary tract infections. SYN *sulfamethoxydiazine*.

sul'fa-meth-a-zine (sū'fā-meth'ā-zēn). One of the components of the triple sulfonamide mixture. SYN *sulfadiazine*.

sul'fa-meth-i-zole (sū'fā-meth'ī-zōl). A sulfonamide useful for the treatment of urinary tract infection, because of its high solubility.

sul'fa-meth-ox-a-zole (sū'fā-meth-ōk'ā-zōl). A sulfonamide related chemically to sulfisoxazole, with a similar antibacterial spectrum, but a slower rate of absorption from the gastrointestinal tract and urinary excretion.

sul'fa-me-thox-y-di-a-zine (sū'fā-mē-thōk'sī-dī'ā-zēn). SYN *sulfameter*.

sul'fa-me-thox-y-py-rid-a-zine (sū'fā-mē-thōk'sī-pī-dī'ā-zēn). A long-acting sulfonamide that requires a single daily dose for maintaining effective tissue concentrations. S. acetyl is a preparation well suited for pediatric use because it is tasteless; it is also used to enhance the actions of quinine and other suppressants in the chemoprophylaxis of malaria.

sul'fa-mox-ole (sū'fā-mōk'sōl). An antimicrobial agent of the sulfonamide group.

p-sul'fa-myl-ac-e-tan-il-ide (sū'fā-mīl-as-e-tan'īl-id). SYN *N*-(acetyl)sulfanilamide.

sul'fa-nil-a-mide (sū'fā-nīl'ā-mīd). The first sulfonamide used for its chemotherapeutic effect in infections caused by some β-hemolytic streptococci, meningococci, gonococci, *Clostridium welchii*, and in certain infections of the urinary tract, especially those due to *Escherichia coli* and *Proteus vulgaris*; less effective than sulfapyridine in the treatment of pneumococcal, staphylococcal, and *Klebsiella pneumoniae* infections. Toxic manifestations include acidosis, cyanosis, hemolytic anemia, and agranulocytosis.

N-sul'fan-i-lyl-a-cet-a-mide (sū'fān'ī-līl'ā-set'ā-mīd). SYN *sulfacetamide*.

N-sul'fan-i-lyl-benz-a-mide (sū'fān'ī-līl-ben'zā-mīd). SYN *sulfabenzamide*.

sul'fa-phen-a-zole (sū'fā-fen'ā-zōl). A long-acting sulfonamide that is rapidly absorbed after oral administration; one dose is sufficient to maintain effective tissue concentration for 24 hours.

sul'fa-pyr-a-zine (sū'fā-pīr'ā-zēn). An antibacterial agent of the sulfonamide group.

sul'fa-pyr-i-dine (sū'fā-pīr'ī-dēn). An antibacterial agent of the sulfonamide group.

sul'fa-sal-a-zine (sū'fā-sāl'ā-zēn). A sulfonamide (acid-azosulfate compound) with a marked affinity for connective tissues, especially for those rich in elastin, used in chronic ulcerative colitis; it is broken down in the body to aminosalicylic acid and sulfapyridine. SYN *salsilylazosulfapyridine*.

sul'fa-tase (sū'fā-tās). 1. Trivial name for enzymes in EC group 3.1.6, the sulfuric ester hydrolases, which catalyze the hydrolysis of sulfuric esters (sulfates) to the corresponding alcohols plus inorganic sulfate; includes aryl-, sterol-, glycol-, chondroitin-, choline-, cellulose-, cerebroside, and chondro- s's. 2. SYN *arylsulfatase*.

multiple s. deficiency, an inherited disorder (autosomal recessive) in which there is a failure to hydrolyze sulfates and sulfated mucopolysaccharides; this failure leads to their accumulation in neural and extraneural tissues, causing demyelination, sulfaturia, facial and skeletal dysmorphism, etc.

sul'fate (sū'fā). A salt or ester of sulfuric acid.

acid s., SYN *bisulfate*.

active s., SYN *adenosine 5'-phosphate 5'-phosphosulfate*.

s. *adenylyltransferase*, an enzyme that catalyzes a step in the pathway for the synthesis of active s.; the enzyme reacts ATP with s. to produce pyrophosphate and adenosine 5'-phosphosulfate (APS). SYN *ATP sulfurylase*.

codeine s., a water-soluble salt of codeine, often used in solid pharmaceutical dosage forms. Also used in cough preparations, where the drug suppresses the cough reflex.

dermatan s., an anticoagulant with properties similar to heparin

leads into the ductus deferens; part of the reservoir of spermatozoa. *syn* cauda epididymidis [TA], cauda epididymis, globus minor.

t. of helix [TA], a flattened process terminating the cartilage of the helix of the ear, posteriorly and inferiorly. *syn* cauda helix [TA].

t. of pancreas [TA], the left extremity of the pancreas within the lienorenal ligament. *syn* cauda pancreatis [TA].

tail-gut (tāl'gūt). *syn* postanal gut.

Tait, Robert L., English gynecologist, 1845-1899. *SEE* T. law.

Ta-ka-di-as-tase (tā-kā-dī'as-tās). *syn* α-amylase.

Takahara, Shigeo, 20th century Japanese otolaryngologist. *SEE* T. disease.

Takayama, Masao, Japanese physician, *1872. *SEE* T. stain.

Takayasu (Takayasu). Michishige, Japanese ophthalmologist, *1872. *SEE* Takayasu arteritis, Takayasu disease, Takayasu syndrome.

take (tāk). A successful grafting operation or vaccination.

tal-lal-gia (tāl-lal'jē-ā). Pain in the ankle. [*L. talus, ankle, G. algos, pain*]

tal-lar (tāl-lār). Relating to the talus.

Talbot, William Henry Fox, British scientist, 1800-1877. *SEE* Plateau-T. law.

talc (tālĕ). Native hydrous magnesium silicate, sometimes containing small proportions of aluminum silicate, purified by boiling powdered t. with hydrochloric acid in water; used in pharmacy as a filter aid, as a dusting powder, and in cosmetic preparations. *syn* French chalk, soapstone, talcum. [*Ar. talq*]

tal-co-sis (tāl-kō'sis). A pulmonary disorder related to silicosis, occurring in workers exposed to talc mixed with silicates; characterized by restrictive or obstructive disorders of breathing or the two in combination. [*talc + G. -osis, condition*]

pulmonary t., pneumoconiosis from inhaling talc dusts.

tal-cum (tāl'kūm). *syn* talc. [*L.*]

tal-l-on (tāl'ōn, tal'yūn). The principle of retribution in intrapsychic behavior. [*Welsh tal, compensation*]

t. dread, The symbolic anxieties that represent the unconscious dread of penalties for an act.

tal-l-ped-ic (tāl-l-ped'ik). Clubfooted.

tal-l-pes (tāl-l-pēz). Any deformity of the foot involving the talus. [*L. talus, ankle, + pes, foot*]

t. calcaneovalgus, t. calcaneus and t. valgus combined; the foot is dorsiflexed, everted, and abducted.

t. calcaneovarum, t. calcaneus and t. varus combined; the foot is dorsiflexed, inverted, and adducted.

t. calca'neus, a deformity due to weakness or absence of the calf muscles, in which the axis of the calcaneus becomes vertically oriented; commonly seen in poliomyelitis. *syn* calcaneus (2).

ta'cus, an exaggeration of the normal arch of the foot. *syn* contracted foot, pes cavus, t. plantaris.

t. equinovag'us, t. equinus and t. valgus combined; the foot is plantarflexed, everted, and abducted. *syn* equinovag'us, pes equinovag'us.

t. equinovar'us, t. equinus and t. varus combined; the foot is plantarflexed, inverted, and adducted. *syn* clubfoot, equinovarus, pes equinovarus.

t. equi'nus, permanent plantar flexion of the foot so that only the ball rests on the ground; it is commonly combined with t. varus.

t. planta'ris, *syn* t. cavus.

t. pla'nus, *syn* pes planus.

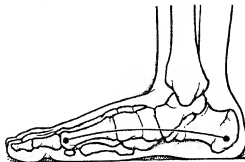
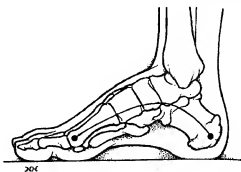
t. transversopla'nus, *syn* metatarsus latius.

t. val'gus, permanent eversion of the foot, the inner side alone of the sole resting on the ground; it is usually combined with a breaking down of the plantar arch. *syn* pes abductus, pes pronatus, pes valgus.

t. va'rus, inversion of the foot, the outer side of the sole only touching the ground; usually some degree of t. equinus is associated with it, and often t. cavus. *syn* pes adductus, pes varus.

tal-low (tāl'ō). The rendered fat from mutton suet.

prepared mutton t., *syn* prepared suet.



talipes cavus (top) and talipes planus (bottom)

△tal-. The talus. [*L. talus, ankle, bone*]

ta-lo-cal-ca-ne-al, **ta-lo-cal-ca-ne-an** (tā-lō-kāl-kā'nē-āl, tā-lō-kāl-kā'nē-an). Relating to the talus and the calcaneus.

ta-lo-cru-ral (tā-lō-kroo'rāl). Relating to the talus and the bones of the leg; denoting the ankle joint.

ta-lo-fib-u-lar (tā-lō-fib'ū-lār). Relating to the talus and the fibula.

ta-lo-na-vic-u-lar (tā-lō-nā-vik'ū-lār). Relating to the talus and the navicular bone. *syn* astragaloscapoid, taloscapoid.

ta-lo-scaph-oid (tā-lō-ska'fōyd). *syn* talonavicular.

tal-ose (tal'ōs). An aldohexose, isomeric with glucose; D-t. is epimeric with D-galactose.

ta-lo-tib-i-al (tā-lō-tib'ē-āl). Relating to the talus and the tibia.

ta-lus, gen. **ta-li** (tāl'is, -li) [TA]. The bone of the foot that articulates with the tibia and fibula to form the ankle joint. *syn* ankle bone, ankle (3). [*L. ankle bone, heel*]

tam-a-rind (tam'ā-rind). The pulp of the fruit of *Tamarindus indica* (family Leguminosae), a large tree of India; mildly laxative. [*Mediev. L. fr. Ar. tamr*]

tam-bour (tām-bur'). The recording part of a graphic apparatus, such as a sphygmograph, consisting of a membrane stretched across the open end of a cylinder and the recording stylus attached to it. [*Fr. drum*]

Tamm, Igor, U.S. virologist, *1922. *SEE* T.-Horsfall mucoprotein, protein.

ta-mox-i-fen cit-rate (tā-mok'sī-fen). A synthetic nonsteroidal estrogen antagonist used in the prevention and treatment of breast cancer.

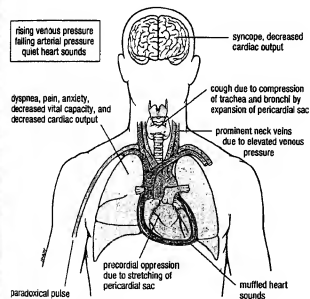
By competing with naturally occurring estrogen for binding sites on tissue cells, tamoxifen inhibits the stimulant effect of estrogen on breast cancers. Tumors that have been shown by biochemical assay to be rich in estrogen receptors are most likely to respond to treatment. Since 1985, tamoxifen has been used in patients who have undergone surgery or irradiation for breast cancer, to delay or prevent relapse. The drug has been found effective in reducing the risk of cancer recurrence or disease progression in women with or without axillary node metastasis. In women with extensive disease, tamoxifen therapy has

been as effective as oophorectomy in retarding progression. In 1992, the National Cancer Institute's Breast Cancer Prevention Trial (BCPT) enrolled more than 13,000 women in the U.S. and Canada to study the preventive value of tamoxifen. All participants were considered at high risk of breast cancer because of age (>60), strong family history, or a prior diagnosis of lobular carcinoma in situ. By March 1998 the difference in incidence of breast cancer between treated and placebo groups was so great that researchers concluded that the ethical need to inform participants of the clear benefits of active drug prophylaxis outweighed any possible benefits of further controlled study. Women in the highest risk categories showed 45% reduction in breast cancer. However, this study demonstrated no effect on mortality, and in two similar trials in Europe, tamoxifen failed to show a statistically significant protective effect. Women taking tamoxifen are at increased risk of endometrial carcinoma, deep venous thrombosis, pulmonary embolism, and cataracts. The danger of these adverse consequences is greatest in women over 50. Long-term use of the drug is associated with recurrent vaginal candidiasis. It is contraindicated during pregnancy because of the risk of fetal harm.

tam-pōn. 1. A cylinder or ball of cotton-wool, gauze, or other loose substance; used as a plug or pack in a canal or cavity to restrain hemorrhage, absorb secretions, or maintain a displaced organ in position. 2. To insert such a plug or pack. [O. Fr.] Corner t., a plug of omentum stuffed into a wound of the stomach or intestine as a temporary t.

tam-pōn-ade, tam-pōn-age (tam-pō-nād', tam-pō-nij). 1. Pathologic compression of an organ. 2. *syn* tamponing.

ta-cardi-a, compression of the heart due to critically increased volume of fluid in the pericardium. *syn* heart t.



assessment for cardiac tamponade due to pericardial effusion

chronic t., cardiac compression over long periods due to pathologically increased fluid in the pericardial sac.

heart t., *syn* cardiac t.

tam-pōn-ing, tam-pōn-ment (tam-pōn-ing, tam-pōn-ment). The act of inserting a tampon. *syn* tamponade (2), tamponage.

ta-nace-to-l, tan-a-ce-tone (ta-nās-tol, tan-ā-sē-tōn). *syn* thujone.

tan-dem (tan-dem). Term used to describe multiple copies of the same sequence in a polynucleic acid that lie adjacent to one another.

tan-gen-ti-al-i-ty (tan-jen-shē-āl-i-tē). A disturbance in the asso-

ciative thought process in which one tends to digress readily from one topic under discussion to other topics which arise in the course of associations; observed in bipolar disorder and schizophrenia and certain types of organic brain disorders. Cf. circumstantiality. [off on a tangent, fr. *L. tango*, to touch]

tan-gle (tang'l). A small irregular knot.

neurofibrillary t., intraneuronal accumulations of helical filaments that assume twisted contorted patterns; found in cells of the hippocampus and cerebral cortex in individuals with Alzheimer disease.

tank. A device made to receive and/or hold liquids.

Hubbard t., a large t., usually filled with warm water, used for therapeutic exercises in a program of physiotherapy.

tan-nase (tan'ās). Tannin acylhydrolase, an enzyme produced in cultures of *Penicillium glaucum* and found in certain tannin-forming plants; it hydrolyzes digallate to gallate, and also acts on ester links in other tannins.

tan-nate (tan'āi). A salt of tannic acid.

Tanner growth chart. See under chart.

Tanner stage. See under stage.

tan-nic (tan'ik). Relating to tan (tan-bark) or to tannin.

tan-nic-ac-id. A tannin, $C_{76}H_{52}O_{46}$, that occurs in many plants, particularly in the bark of oaks and other members of the Fagaceae; used as a styptic and astringent, and in the treatment of diarrhea; available also as tannic acid glycerite. Sometimes used synonymously with tannin.

tan-nin (tan'in). Any one of a group of complex nonuniform plant constituents that can be classified into hydrolyzable t.'s (esters of a sugar, usually glucose, and one or several trihydroxybenzenecarboxylic acids) and condensed t.'s (derivatives of flavonols). T.'s are used in tanning, dyeing, photography, and as clarifying agents for beer and wine. Sometimes used synonymously with tannic acid. T.'s form black stains in the presence of iron.

tan-nyl-ac-e-tate (tan-il-as'e-tāt). *syn* acetyl/tannic acid.

tan-ta-lum (Ta) (tan'is-lūm). A heavy metal of the vanadium group, atomic no. 73, atomic wt. 180.9479; used in surgical prostheses because of its noncorrosive properties. [G. mythical king of Lydia, *Tantalus*]

tan-trum (tan'trūm). A fit of bad temper, especially in children.

tan-y-cyte (tan'y-sīt). A variety of ependymal cell found principally in the walls of the third ventricle of the brain; the t.'s may have branched or unbranched processes, some of which end on capillaries or neurons.

tan-y-pho-nia (tan-i-fō'nē-ā). A thin, weak voice resulting from tension of vocal muscles. [G. *tanyō*, to stretch, + *phonē*, sound]

TAP. A protein that transports a peptide from the cytoplasm into the lumen of the endoplasmic reticulum.

tap. 1. To withdraw fluid from a cavity by means of a trocar and cannula, hollow needle, or catheter. 2. To strike lightly with the finger or a hammerlike instrument in percussion or to elicit a tendon reflex. 3. A light blow. 4. An East Indian fever of undetermined nature. 5. An instrument to cut threads in a hole in bone prior to inserting a screw. [M.E. *tappe*, fr. A.S. *taeppe*] heel t., a reflex movement of the toes when the heel is tapped, present in multiple sclerosis and other diseases of the pyramidal tract.

mitral t. (1) the palpable equivalent of the opening snap of the mitral valve; (2) the palpable accentuated first heart sound of mitral stenosis; often mistaken for the apex beat.

pericardial t., *syn* pericardiocentesis.

pleural t., *syn* thoracentesis.

spinal t., *syn* lumbar puncture.

tape (tāp). A thin flat strip of fascia or tendon, or of synthetic material, used as a tie or suture. [A.S. *taeppe*]

adhesive t., fabric or film evenly coated on one side with a pressure-sensitive adhesive mixture.

ta-pe-to-cho-roi-dal (tā-pē-tō-kō-ro'y-dāl). Relating to the tapetum and the choroid.

ta-pe-to-ret-i-nal (tā-pē-tō-ret'i-nāl). Relating to the tapetum epithelium and the sensory retina.

EB v., *syn* Epstein-Barr v.

Ebola v., a v. of the family Filoviridae, morphologically similar but antigenically distinct from Marburg v.; the cause of Ebola fever (viral hemorrhagic fever). Transmission is parenteral, not oral, sexual, or by inhalation. After an incubation period of about 1 week, disease comes on acutely with fever, headache, vomiting and diarrhea, weakness, and a maculopapular rash. Gastrointestinal bleeding and other hemorrhagic manifestations, including disseminated intravascular coagulation, appear in a high percentage of cases and often prove fatal. The case fatality rate approximates 80%. Specific prevention and treatment are not available.

Ebola virus made the headlines in 1995 when a sudden and devastating outbreak occurred in Kikwit, Zaire. In this cluster, which involved a number of health care workers, 315 persons became infected, of whom 243 (77%) died. Most cases in the Kikwit outbreak were blamed on the re-use, in clinics and hospitals, of unsterile medical and surgical equipment, contaminated with the blood, vomitus, stool, and urine of patients. In the following year, two large outbreaks occurred in Gabon. Serologic studies of patients in Gabon suggest that survival depends on early formation of IgG antibody directed against viral capsular protein. Despite sensational and exaggerated accounts by the news media, epidemics of Ebola virus disease and other viral hemorrhagic fevers do not occur when standard infection control measures are used. Further epidemics will occur in third-world countries as long as poverty and ignorance lead to unsound health care practices, but the disease poses no risk of epidemic spread in developed countries.

Ebola v. Côte-d'Ivoire, *syn* Côte-d'Ivoire virus.

Ebola v. Reston, *syn* Reston v.

Ebola v. Sudan, *syn* Sudan v.

Ebola v. Zaire, *syn* Zaire v.

ECHO v., an enterovirus from a large group of unrelated viruses belonging to the Picornaviridae, isolated from humans; while there are many inapparent infections, certain of the several serotypes are associated with fever and aseptic meningitis, and some appear to cause mild respiratory disease. *syn* echovirus, enteric cytopathogenic human orphan v.

ECMO v., simian picornavirus recovered from monkey kidney cells and stools. *syn* enteric cytopathogenic monkey orphan v.

ecotropic v., a retrovirus that does not produce disease in its natural host but does replicate in tissue culture cells derived from the host species.

EC50 v., a picornavirus isolated from outbreaks of enteritis in swine, but not known to be a natural pathogen. *syn* enteric cytopathogenic swine orphan v.

ectromelia v., *syn* infectious ectromelia v.

EEE v., *syn* eastern equine encephalomyelitis v.

EMC v., *syn* encephalomyocarditis v.

emerging viruses, in epidemiology, a class of viruses that have long infected humans or animals but now have the opportunity to attain epidemic proportions due to human encroachment on tropical rainforests, increased international travel, burgeoning populations in less developed countries, and, possibly, mutations. A number of viruses have been termed emergent, including hemorrhagic viruses such as Ebola, Marburg, and Hantaan; the rabies-like viruses Mokola and Duvenhage; rodent-borne Junin and Lassa virus; and mosquito-borne dengue. Virologists speculate that the strain of HIV that causes AIDS may also fall into this category, having entered humans through contact with monkeys in central Africa, possibly having existed among monkey populations for some 50,000 years.

encephalitis v., any one of a variety of viruses that cause encephalitis.

encephalomyocarditis v., a Cardiovirus in the family Picornaviridae, usually from rodents, isolated from blood and stools of humans, other primates, pigs, and rabbits; occasionally causes febrile illness with central nervous system involvement in humans, and an often fatal myocarditis in chimpanzees, monkeys

and pigs; strains of this v. include Columbia S. K. v. and Mengo v. *syn* EMC v.

enteric viruses, viruses of the genus Enterovirus.

enteric cytopathogenic human orphan v., *syn* ECHO v.

enteric cytopathogenic monkey orphan v., *syn* ECHO v.

enteric cytopathogenic swine orphan v., *syn* ECHO v.

enteric orphan viruses, enteroviruses isolated from humans and other animals, "orphan" implying lack of known association with disease when isolated; many viruses of the group are now known to be pathogenic; they include ECHO viruses, ECHO viruses, and ECHO viruses.

enzootic encephalomyelitis v., *syn* Borna disease v.

ephemeral fever v., a rhabdovirus that causes ephemerical fever of cattle.

epidemic gastroenteritis v., a RNA v., about 27 nm in diameter, which has not been cultured in vitro; it is the cause of epidemic nonbacterial gastroenteritis; at least five antigenically distinct serotypes have been recognized, including the Norwalk agent. These viruses are classified with the Calciviruses in the family Calciviridae. *syn* gastroenteritis v. type A.

epidemic keratoconjunctivitis v., an adenovirus (type 8) causing epidemic keratoconjunctivitis, especially among shipyard workers, and also associated with outbreaks of swimming pool conjunctivitis. *syn* shipyard eye.

epidemic myalgia v., *syn* epidemic pleurodynia v.

epidemic parotitis v., *syn* mumps v.

epidemic pleurodynia v., a v. of Enterovirus coxsackievirus type B, in the family Picornaviridae, that causes epidemic pleurodynia. *syn* Bornholm disease v., epidemic myalgia v.

Epstein-Barr v. (EBV), a herpesvirus in the genus Lymphocryptovirus that causes infectious mononucleosis and is also found in cell cultures of Burkitt lymphoma; associated with nasopharyngeal carcinoma. *syn* EB v., human herpesvirus 4.

FA v., a strain of mouse encephalomyelitis v.

fibrous bacterial viruses, *syn* filamentous bacterial viruses.

filamentous bacterial viruses, deoxyribonucleoproteins that "infect" and replicate in Gram-negative bacteria having sex pili and that, unlike bacteriophage, are released from infected bacteria without damage to the cell; they seem to be of two kinds, one of which has a specificity for F pili and the other for I pili. *syn* fibrous bacterial viruses.

filtrable v., *syn* virus (2).

fixed v., rabies v., whose virulence for rabbits has been stabilized by numerous passages through this experimental host. *see* also street v.

Flury strain rabies v., *see* rabies v., Flury strain.

FMD v., *syn* foot-and-mouth disease v.

foamy viruses, retroviruses of the genus Spumavirus, family Retroviridae, found in primates and other mammals; so named because of lacelike changes produced in monkey kidney cells; syncytia are also produced. *syn* foamy agents.

foot-and-mouth disease v., a picornavirus of the genus Aphthovirus, family Picornaviridae, causing foot-and-mouth disease of cattle, swine, sheep, goats, and wild ruminants; it has wide distribution throughout Africa and Asia, causing serious economic losses; the v. is spread by contamination of the animal environment with infected saliva and excreta. *syn* FMD v.

Four Corners v., *syn* Sin Nombre v. [from the section of the U.S. where New Mexico, Colorado, Utah, and Arizona meet, site of a major occurrence]

Friend v., a strain of the splenic group of mouse leukemia viruses, related to Moloney and Rauscher viruses. *syn* Friend leukemia v., Swiss mouse leukemia v.

Friend leukemia v., *syn* Friend v.

GAL v., a v. with characteristics of adenovirus, not known to be associated with natural disease. *syn* gallus adenolike v.

gallus adenolike v., *syn* GAL v.

gastroenteritis v. type A, *syn* epidemic gastroenteritis v.

gastroenteritis v. type B, *syn* rotavirus.

GB viruses, members of the family Flaviviridae; GBV-A and GBV-B have been isolated from tamarins infected with human